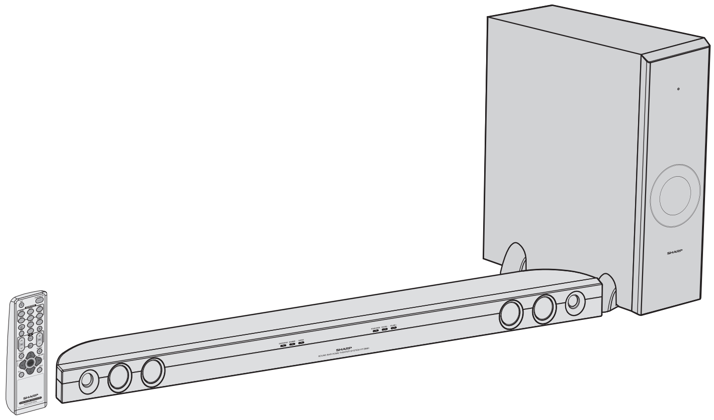
# SHARP SERVICE MANUAL

No. S8232HTSB60HE

## SOUND BAR HOME THEATER SYSTEM

## MODEL HT-SB60

**[For Europe, U.K.]**



**HT-SB60 Sound Bar Home Theater system consisting of HT-SB60 (sound bar system) and CP-SW60 (active subwoofer system).**

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

es plus S 3D SOUND SOLUTION | DOLBY DIGITAL | Wireless Subwoofer | 3D Audio Return Channel 3D Pass - Through HDMI Repeater | HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE | dts Digital Surround

## CONTENTS



Parts marked with " ⚠ " are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

## PRECAUTIONS FOR USING LEAD-FREE SOLDER

### 1. Employing lead-free solder

"MAIN/AMPLIFIER, DISPLAY, SUBWOOFER, REGULATOR, SMPS (AMPLIFIER), SMPS (SUBWOOFER), HDMI, TRANSMIT, RECEIVE PWB" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWB and service manuals.
The alphabetical character following LF shows the type of lead-free solder.

Example: LFa

Sn-Ag-Cu Indicates lead-free solder of tin, silver and copper.

### 2. Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

### 3. Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wet ability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, since the land may be peeled of for the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corrected. Make sure to turn on and off the power of the bit as required. If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sand paper.
Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

| Ref. No. | Parts No. | Description |
|---|---|---|
| PWB-A | 92LPWB8696MANS | MAIN/AMPLIFIER (A1), DISPLAY (A2), SUBWOOFER (A3), REGULATOR (A4) |
| PWB-B | RUiTZA069AWZZ | SMPS (AMPLIFIER) |
| PWB-C | RUiTZA070AWZZ | SMPS (SUBWOOFER) |
| PWB-D | 92LPWB8695HDMS | HDMI |
| PWB-E | RUiTZA082AWZZ | TRANSMIT |
| PWB-F | RUiTZA078AWZZ | RECEIVE |

# CHAPTER 1. GENERAL DESCRIPTION

## [1] Safety Precaution For Service Manual

### ■ WARNING

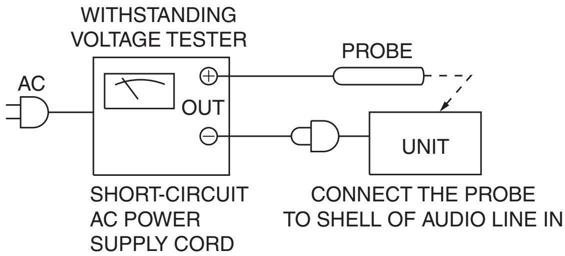
This unit contains no user serviceable parts. Never remove covers unless qualified to do so.
This unit contains dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.

## [2] Important Service Notes (for U.K. only)

Before returning the unit to the customer after completion of a repair or adjustment it is necessary for the following withstand voltage test to be applied to ensure the unit is safe for the customer to use.

Setting of Withstanding Voltage Tester and set.

| Set name | set value |
|---|---|
| Withstanding Voltage Tester | |
| Test voltage | 4,240 VPEAK<br>3,000 VRMS |
| Set time | 6 secs |
| Set current (Cutoff current) | 4 mA |
| Unit | |
| Judgment | |
| OK: The "GOOD" lamp lights.<br>NG: The "NG" lamp lights and the buzzer sounds. | |




## [3] Specifications

### ■ Sound Bar

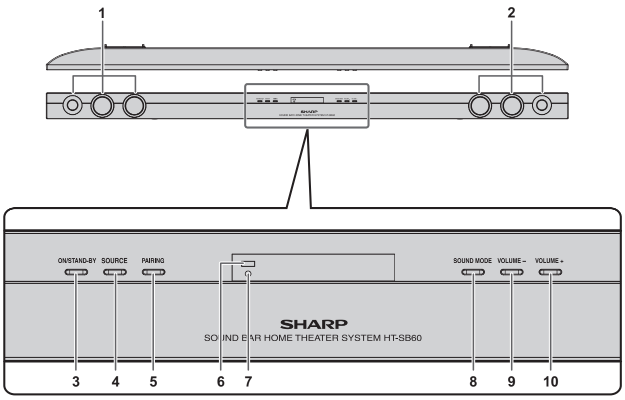
| | |
|---|---|
| **Power source** | AC 220 - 240 V ~ 50/60 Hz |
| **Power consumption** | Power on: 38 W<br>Power standby: 0.4 W (*) |
| **Dimension** | Width: 1385 mm (54 - 1/2")<br>Height: 73 mm (2 - 7/8")<br>Depth: 68 mm (2 - 11/16") |
| **Weight** | 3.6 kg (7.92 lbs.) |
| **Output power** | RMS: Total 160 watts<br>RMS: 160 W (80 W + 80 W) (10% T.H.D.)<br>RMS: 120 W (60 W + 60 W) (1% T.H.D.) |
| **Output terminal** | HDMI™ (audio/video support up to 1080p) x 1 |
| **Input terminal** | analogue input (AUDIO IN): x 1<br>500 mV / 47 kohms<br>Optical digital input (OPTICAL):<br>Square type x 1<br>HDMI input: (audio/video support up to 1080p) x 2 |
| **Type** | 2 Way speaker system<br>5.7 cm (2 -1/4") woofer<br>2.5 cm (1") Soft Dome |
| **Maximum input power** | 160 W |
| **Rated input power** | 80 W |
| **Impedance** | 4 ohms |

(*) This power consumption value is obtained when the sound bar is in low power consumption mode. (Demo indicator turns off).

### ■ Subwoofer

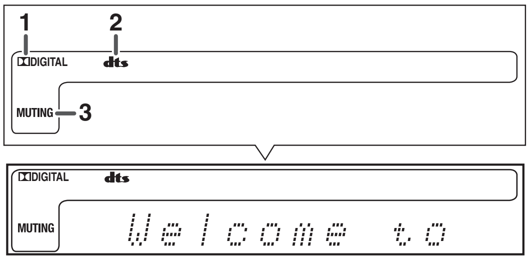
| | |
|---|---|
| **Power source** | AC 220 - 240 V ~ 50/60 Hz |
| **Power consumption** | 33 W |
| **Output power** | RMS: 150 W (10% T.H.D.)<br>RMS: 120 W (1% T.H.D.) |
| **Type** | Subwoofer system<br>16 cm (6 - 5/16") woofer |
| **Maximum input power** | 300 W |
| **Rated input power** | 150 W |
| **Impedance** | 3 ohms |
| **Dimensions** | Width: 144 mm (5 - 11/16")<br>Height: 430 mm (16 - 15/16")<br>Depth: 306 mm (12 - 1/16") |
| **Weight** | 6.1 kg (13.42 lbs.) |

## [4] Names Of Parts



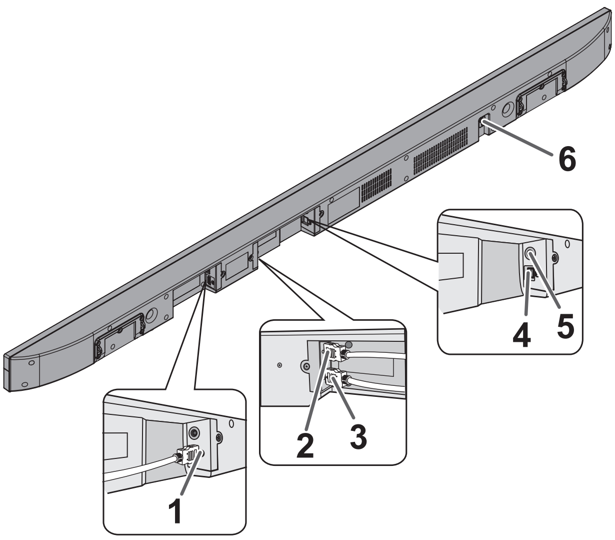

### ■ Sound Bar Front Panel

1. Left Channel Speakers
2. Right Channel Speakers
3. On/Stand-by Button
4. SOURCE Button
5. Pairing Button
6. Remote Sensor
7. Demo Indicator
8. Sound Mode Button
9. Volume Down Button
10. Volume Up Button



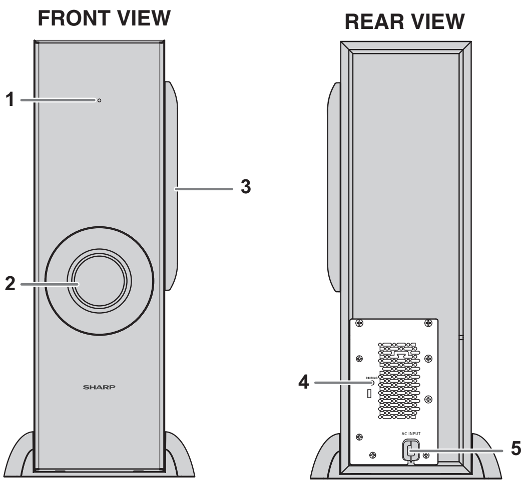

### ■ Display

1. Dolby Digital Indicator
2. DTS Indicator
3. Muting Indicator



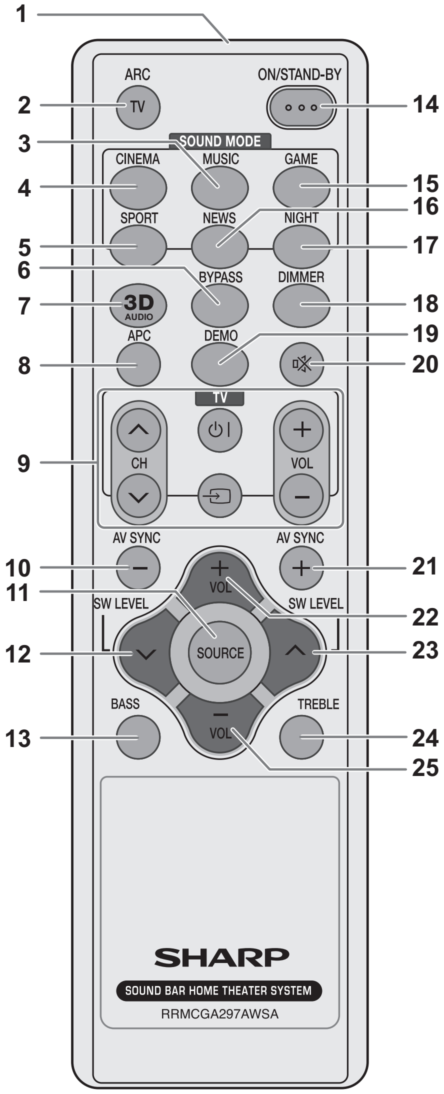

### ■ Sound Bar Rear Panel

1. HDMI OUT (TV ARC) Socket
2. HDMI IN 1 Socket
3. HDMI IN 2 Socket
4. Optical IN Socket
5. Audio IN Terminal
6. AC Power Lead




### ■ Subwoofer

1. Power/Pairing Indicator
2. Bass Reflect Duct
3. Woofer
4. Pairing Button
5. AC Power Lead




## ■ Remote Control

1. Remote Control Transmitter
2. TV ARC Button
3. Music (Sound Mode) Button
4. Cinema (Sound Mode) Button
5. Sport (Sound Mode) Button
6. BYPASS Button
7. 3D AUDIO Button
8. APC Button
9. TV Operation Button
10. AV SYNC Down Button
11. Source Button
12. Subwoofer Level Down Button
13. Bass Button
14. On/Stand-by Button
15. Game (Sound Mode) Button
16. News (Sound Mode) Button
17. Night (Sound Mode) Button
18. Dimmer Button
19. Demo Button
20. MUTE/Speaker Output Selection Button
21. AV SYNC Up Button
22. Volume Up Button
23. Subwoofer Level Up Button
24. Treble Button
25. Volume Down Button

| TV Operation Buttons (Only SHARP TV): | | | |
|---|---|---|---|
| On/Stand-by Button | Sets the TV power to "ON" or "STAND-BY". | Input Select Button (TV) | Press the button to switch the input source. |
| Channel Up and Down Buttons | Switch up/ down the TV channels. | Volume Up and Down Buttons | Turn up/ down the TV volume. |

**Note:**
Some models of SHARP TV may not be operable.

# CHAPTER 2. ADJUSTMENTS

## [1] Test Mode

### 1. Enter the Test Mode version display

While pressing down ON/STANDBY and SOURCE button, ON AC supply.
Version will be displayed as below :-
SB60 XXXX --> DHHHHHHH --> TX Ver : XXXX --> RX Ver : XXXX -->
Press SOUND MODE key at main unit to toggle between display.

SB60 = Model name, SB60
XXXX = version no
D = Destination
HHHHHHH = HDMI Firm Ware Version
TX Ver : XXXX = Wireless module Firmware version (sound bar wireless module)
RX Ver : XXXX = Wireless module Firmware version (subwoofer wireless module)

### 2. Enter Key and Display Test Mode

After enter Test Mode version display, Press VOL UP / DOWN button.
Select “KEY TEST”. Press SOUND MODE button to execute.

1. TIMER LED will light ON
2. LCD display will light on. If press button as below :

| Key | Display |
|---|---|
| VOL UP | KEY 01 |
| VOL DOWN | KEY 02 |
| SOUND MODE | KEY 03 |
| PAIRING | KEY 04 |
| SOURCE | KEY 05 |

### 3. Exit the Test Mode

While in Test Mode function, Press ON/STANDBY button to exit.

### 4. Error Code Description.

| Display | Explanation | Solution |
|---|---|---|
| E1 | Communication error between Micom and CS8416 / CS5346 | > Unplug AC cord and turn power ON again<br>> Check line connected between |
| E2 | Communication error between Micom and CS4953xx | |
| E3 | Communication error between Micom and TAS5508B | |
| E4 | Communication error between Micom and HDMI | |

## [2] Abnormal detection distinction at DEMO indicator (LED_red)

It has a case that need to Power OFF immediately after detected an abnormal condition without display any error indication due to safety matter. In such case, a trouble point can be judged by a distinction indication at DEMO indicator which current is being supplied during Power off.

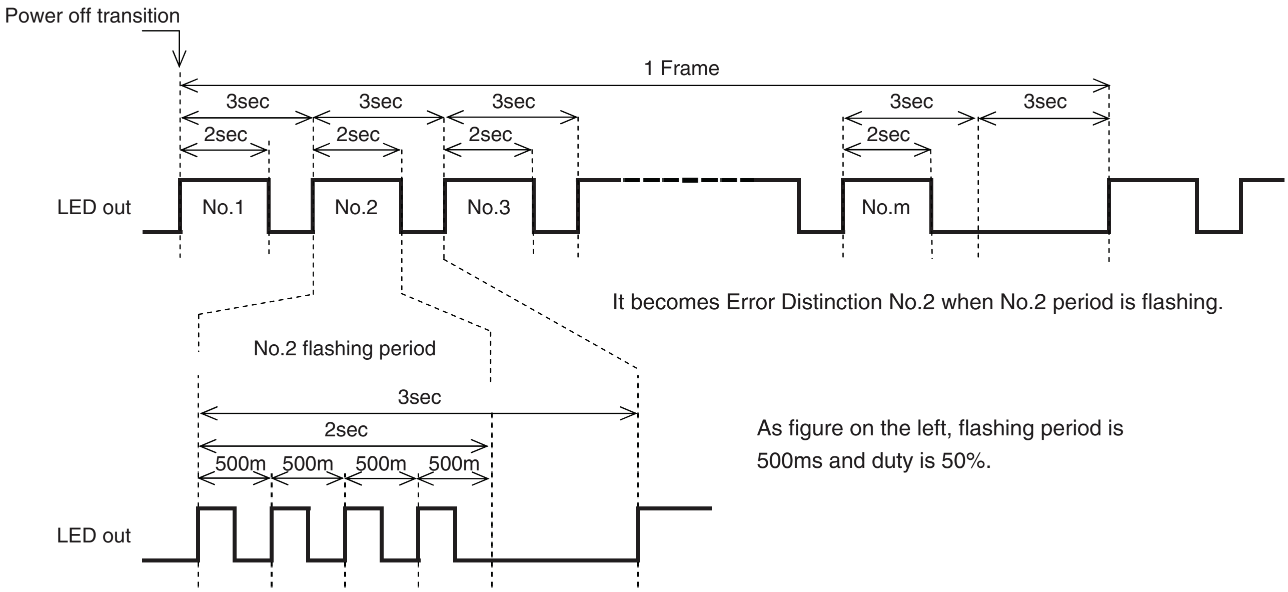
Basically, it is decided to be distinguished which input port of the system microcomputer was detected or which communication information was detected. Moreover, two kinds of over-voltage and drop-voltage are decided to be distinguished, and contents of indication are decided to be changed when it is detected in the range of the A/D value in the A/D input port, for example the over-voltage, the normality voltage, the drop-voltage of the power supply line are being monitored.

1. DEMO indicator Distinction Display Format

A lighting period (or flashing period) and a lights-off period are controlled as the bottom figure after the abnormal detection and the Power off transition. It will repeat and control 1 frame of the bottom figure. (A lighting period or flash period is mentioned on the "H" side.) 1 frame is set up as 2 sec lighting period in every 3 sec or flashing period, repeat m time, and then the last period only (m+1) should turn off the lights. (To recognize the head position.)

m is $2 \leqq m \leqq 10$, it can be set up in every model freely as long as "'Distinction No.' and the Abnormal Detection Table" mentioned in two clauses are protected.

A flashing period is set to one place only of No. 1 - No. m, and others are lighting period. The 'Error Distinction No.' is made at which part is flashing. In other words, it is set as the 'Distinction No.' by looking at which number is flashing from the head of 1 frame.




Note: It can set up freely in every model the repetition period 3sec, the lighting or flash period 2sec, a flashing periodic 500ms etc. as long as it can be recognized.

2. Distinction No. and Abnormal Detection Table

It defines the abnormal detection contents that correspond to the 'Distinction No.' as the bottom table in order to put in together between the models.

| Distinction No. | Abnormal Detection Name | Reference |
|---|---|---|
| 1 | System Protect | Abnormal supply detection |
| 2 | Reserved | - |
| 3 | AMP Shutdown | AMP protection |

Note: It is desirable to indicate it with small 'Distinction No.' when it is being monitored two and more abnormal detection in one line together using 1 port. In other words, when it is being monitored by compound 1 input. For example, it is set to Distinction No. 1 when System Protect and AMP Protect are being monitored in 1 port.

3. For this model, abnormal detection (Power Off without error display) as the following.

| | Abnormal Detect | < Process > |
|---|---|---|
| (1) | SYSTEM PROTECT | Power OFF and indicate at POWER LED 'Distinction No.1' |
| (2) | Reserved | - |
| (3) | AMP_Shutdown | Power OFF and indicate at POWER LED 'Distinction No.3' |

Reference: This case, m = 3 and 1 frame period is 12 sec.

4. As for subwoofer Abnormal Detection, there are 3 types of detection.
   The detection is by simple RED LED flashing indicating Abnormal Status.

| No | Abnormal Detect | < Process > |
|---|---|---|
| (1) | Repeated Bus Error | Red LED blinking for 2 times and pause cycle. |
| (2) | System Protect | Red LED blinking for 4 times and pause cycle. |
| (3) | AMP Shutdown | Red LED blinking for 5 times and pause cycle. |

## [3] Manual pairing between the Amplifier and Subwoofer.

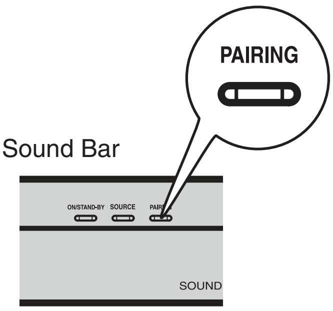
After changing the TX or RX Wireless Modules, the Sound bar and Subwoofer must establish a link. Set the connection by the following method.

1 Press and hold the PAIRING button on the sound bar for more than 3 seconds.
2 Within 2 minutes, press and hold the PAIRING button on the subwoofer for more than 3 seconds.

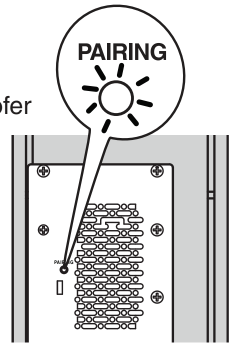
- During pairing process:
  On sound bar : “PAIRING” will blink.
  On subwoofer : indicator will blink in blue.

- When pairing is successful:
  On sound bar : “PAIRING” disappears.
  On subwoofer : indicator turns blue.

Sound Bar




Subwoofer



# CHAPTER 3. MECHANICAL DESCRIPTION

## [1] Disassembly

### Caution On Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

**SOUND BAR SYSTEM**

| STEP | REMOVAL | PROCEDURE | FIGURE |
|---|---|---|---|
| 1 | Back Cabinet | 1. Screw..................(A1) x 23<br>2. Cover A...............(A2) x 1<br>3. Cover B...............(A3) x 1<br>4. Cover C ..............(A4) x 1<br>5. Socket.................(A5) x 1 | 1<br>1<br>1<br>1<br>2 |
| 2 | SMPS (Amplifier) PWB | 1. Screw..................(B1) x 2<br>2. Screw..................(B2) x 2 | 2 |
| 3 | HDMI PWB | 1. Screw..................(C1) x 2<br>2. Screw..................(C2) x 3<br>3. Socket .................(C3) x 1 | 2 |
| 4 | Regulator PWB | 1. Screw..................(D1) x 1 | 2 |
| 5 | Main/Amplifier PWB | 1. Screw..................(E1) x 2<br>2. Screw..................(E2) x 1<br>3. Socket.................(E3) x 2<br>4. Flat Cable ...........(E4) x 2 | 2 |
| 6 | Display PWB | 1. Screw..................(F1) x 4 | 3 |
| 7 | Transmit PWB | 1. Screw..................(G1) x 1 | 3 |
| 8 | Woofer | 1. Screw..................(H1) x 16 | 3 |
| 9 | Soft Dome Tweeter | 1. Screw..................(J1) x 8 | 3 |

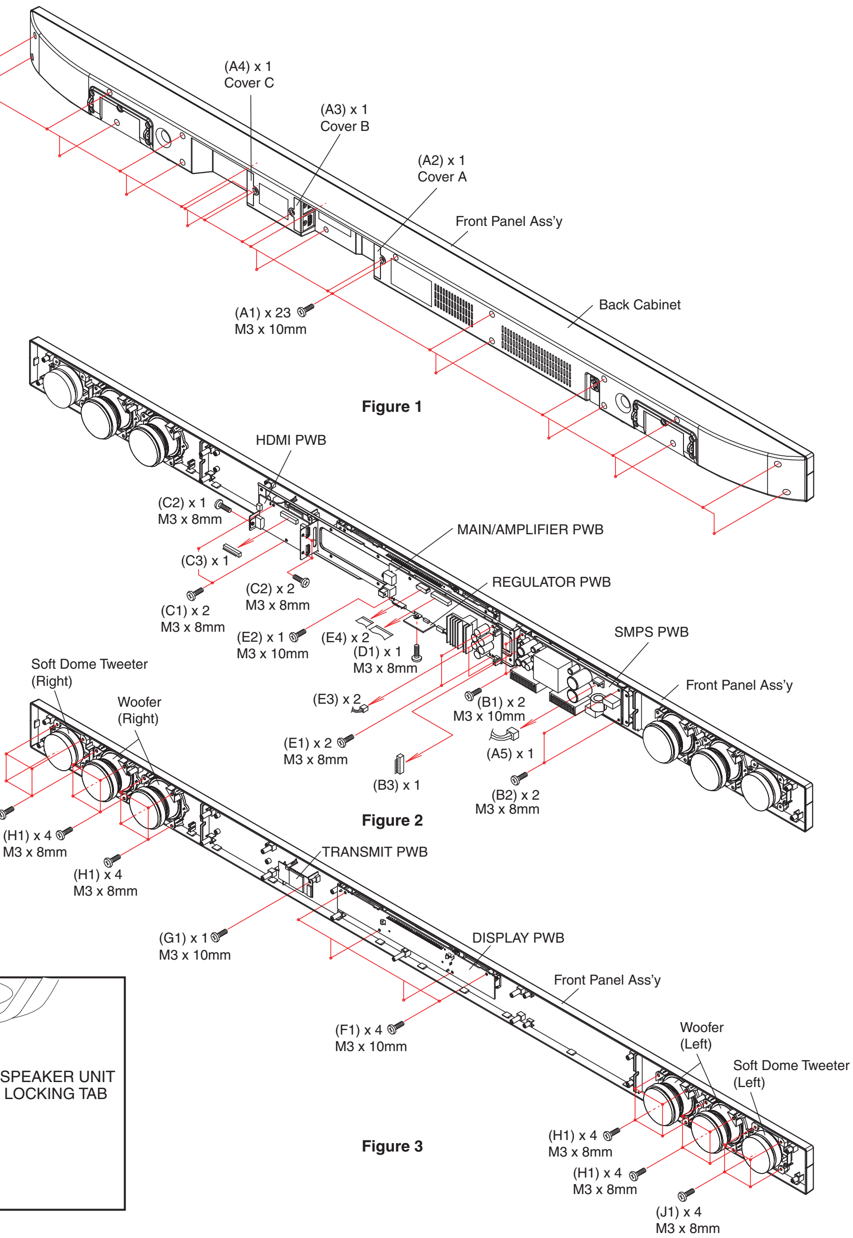
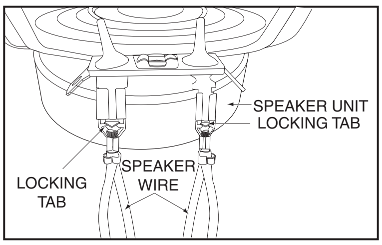



Figure 1

Figure 2

Figure 3




**CAUTION:**
TO REMOVE SPEAKER UNIT, PRESS THESE LOCKING TABS TO RELEASE SPEAKER WIRES.

## ACTIVE SUBWOOFER SYSTEM

| STEP | REMOVAL | PROCEDURE | FIGURE |
|---|---|---|---|
| 1 | Main Chassis | 1. Screw..................(A1) x 4 | 4 |
| | | 2. Screw..................(A2) x 4 | 4 |
| | | 3. Screw..................(A3) x 4 | 4 |
| | | 4. Rear Panel...........(A4) x 1 | 4 |
| | | 5. Socket ................(A5) x 2 | 5 |
| 2 | Subwoofer PWB | 1. Screw..................(B1) x 4 | 5 |
| | | 2. Socket ................(B2) x 1 | |
| | | 3. Flat Cable ............(B3) x 1 | |
| 3 | Receive PWB | 1. Screw..................(C1) x 1 | 5 |
| 4 | SMPS (Subwoofer) PWB | 1. Screw..................(D1) x 4 | 6 |
| | | 2. Socket ................(D2) x 1 | |
| 5 | Subwoofer | 1. Net Frame Ass'y..(E1) x 1 | 7 |
| | | 2. Screw..................(E2) x 4 | |

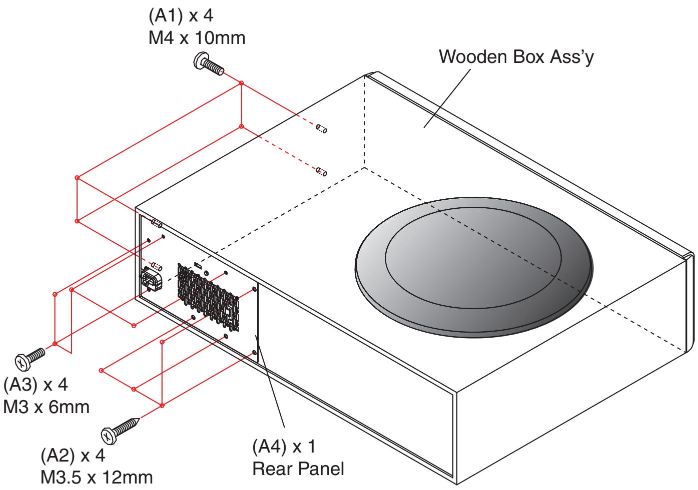



**Figure 4**

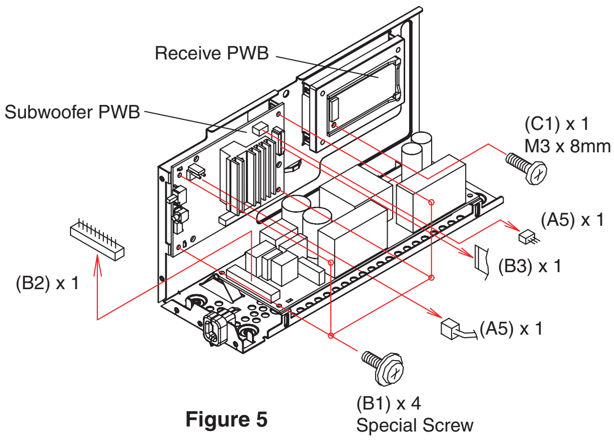



**Figure 5**

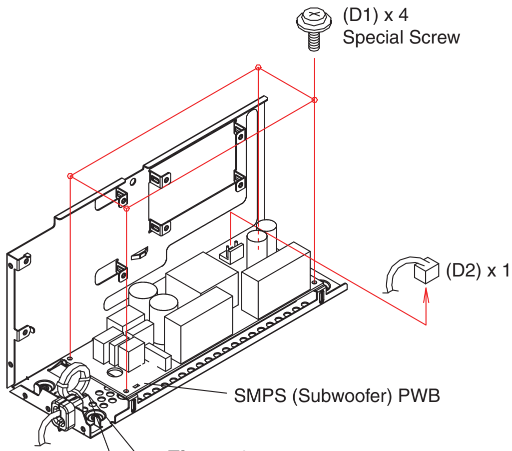
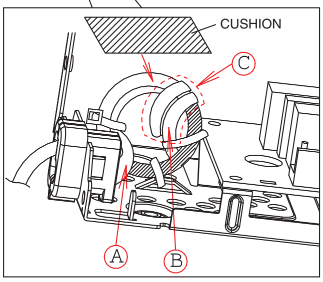



**Figure 6**




**CAUTION:**
TIE AC CORD WITH NYLON BAND AS SHOWN IN DIAGRAM.
1. Ⓐ MUST NOT TOUCH Ⓑ.
2. PUSH Ⓒ TO RIGHT SIDE THEN WRAP WITH CUSHION.
2. MAKE SURE LAST TURN WIRE Ⓑ AT THE RIGHT SIDE.

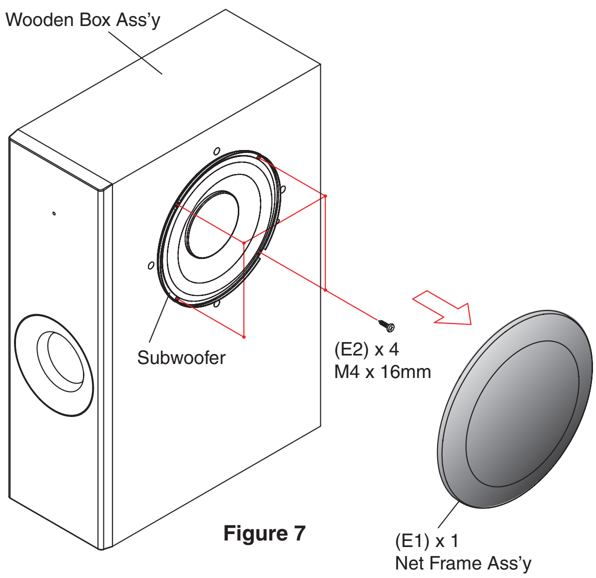
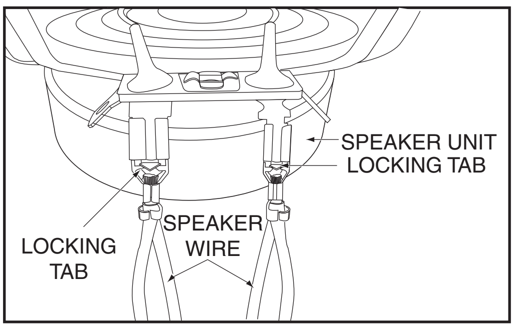



**Figure 7**




**CAUTION:**
TO REMOVE SPEAKER UNIT, PRESS THESE LOCKING TABS
TO RELEASE SPEAKER WIRES.

# CHAPTER 4. CIRCUIT DESCRIPTION

### [1] Waveform Of Wireless Transmission

During AUDIO IN function

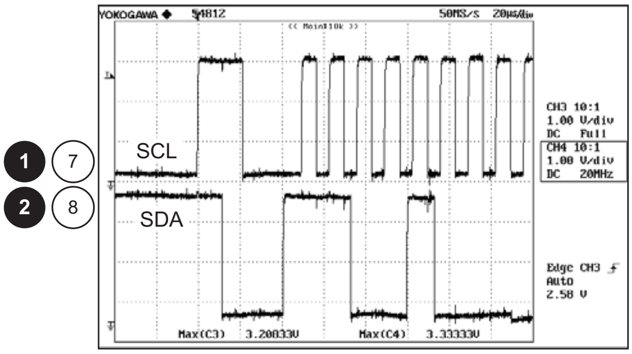
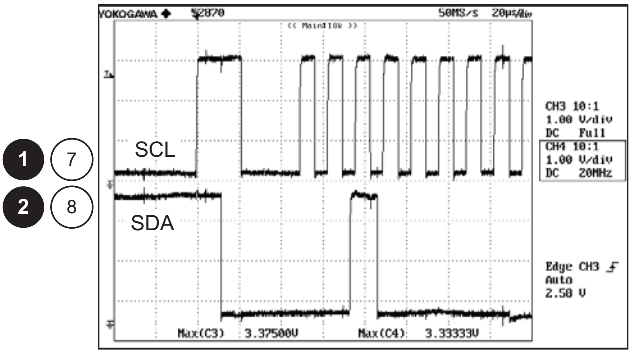
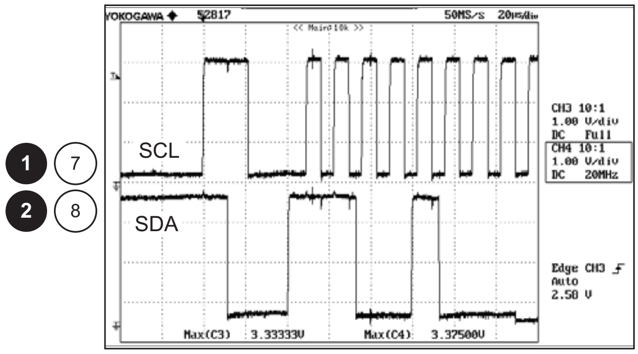



Fig. 1

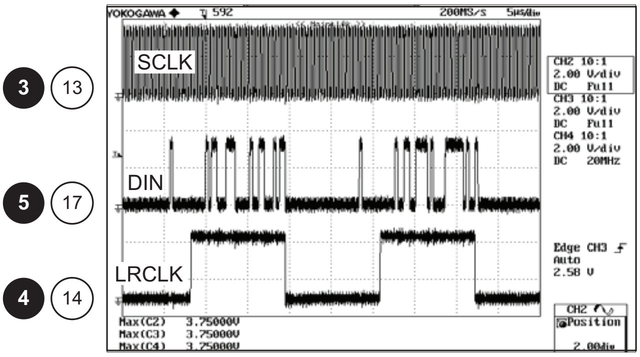
During HDMI 1 function



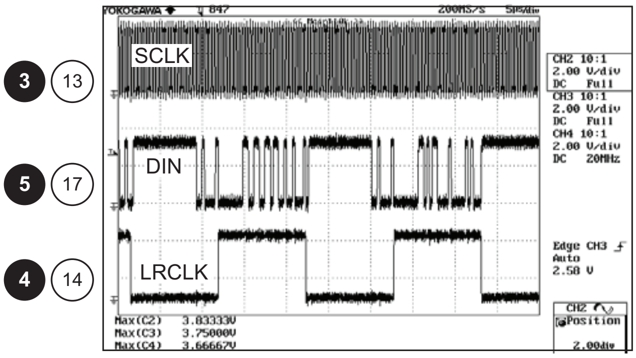

During HDMI 2 function




During HDMI function




During AUDIO IN function




# Note : All waveforms are tapped from CNP502 (MAIN / AMPLIFIER PWB-A1)

## [2] Voltage

### Main PWB (Tx)

| IC500 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 7.50m | 21 | 3.30 | 41 | 2.10m | 61 | 3.70m | 81 | 3.30m |
| 2 | 7.20m | 22 | 7.10m | 42 | 6.10m | 62 | 3.30 | 82 | 1.29 |
| 3 | 8.70m | 23 | 7.20m | 43 | 3.20 | 63 | 3.30 | 83 | 2.34 |
| 4 | 7.70m | 24 | 1.32 | 44 | 3.30 | 64 | 1.90m | 84 | 4.40m |
| 5 | 7.80m | 25 | 1.32 | 45 | 3.30 | 65 | 4.10m | 85 | 3.80m |
| 6 | 7.00m | 26 | 7.60m | 46 | 3.30 | 66 | 3.70m | 86 | 3.80m |
| 7 | 3.30 | 27 | 7.50m | 47 | 5.30m | 67 | 3.90m | 87 | 3.30 |
| 8 | 5.70m | 28 | 7.80m | 48 | 3.28 | 68 | 3.80m | 88 | 3.28 |
| 9 | 0.94 | 29 | 3.10 | 49 | 3.28 | 69 | 3.90m | 89 | 3.24 |
| 10 | 0.00 | 30 | 3.13 | 50 | 5.40m | 70 | 4.00m | 90 | 3.30 |
| 11 | 0.59 | 31 | 6.30m | 51 | 5.60m | 71 | 4.00m | 91 | 3.30 |
| 12 | 3.28 | 32 | 3.30 | 52 | 5.40m | 72 | 4.10m | 92 | 3.90m |
| 13 | 1.63 | 33 | 3.30 | 53 | 5.50m | 73 | 4.00m | 93 | 1.30m |
| 14 | 5.70m | 34 | 3.30 | 54 | 5.30m | 74 | 3.30 | 94 | 1.30m |
| 15 | 1.38 | 35 | 3.28 | 55 | 4.40m | 75 | 4.10m | 95 | 1.30m |
| 16 | 3.30 | 36 | 3.28 | 56 | 3.28 | 76 | 3.90m | 96 | 3.10m |
| 17 | 3.30 | 37 | 3.30 | 57 | 1.70m | 77 | 4.00m | 97 | 6.50m |
| 18 | 3.19 | 38 | 3.28 | 58 | 3.30 | 78 | 4.20m | 98 | 3.31 |
| 19 | 3.31 | 39 | 6.20m | 59 | 3.90m | 79 | 4.10m | 99 | 3.30 |
| 20 | 2.80 | 40 | 3.28 | 60 | 3.70m | 80 | 4.00m | 100 | 5.90m |

| IC501 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | 3.31 |
| 2 | 3.31 |
| 3 | 0.00 |
| 4 | 0.80m |

| IC502 | | | |
|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 4.25 | 5 | 0.62 |
| 2 | 1.26 | 6 | 0.63 |
| 3 | 1.24 | 7 | 4.38 |
| 4 | -1.30m | 8 | 5.03 |

| IC801 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | 5.02 |
| 2 | 0.00 |
| 3 | 5.02 |
| 4 | 0.00 |
| 5 | 3.30 |

| IC802 | | | |
|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 11.50 | 5 | 0.79 |
| 2 | 11.80 | 6 | 1.07 |
| 3 | 7.80 | 7 | 2.97 |
| 4 | -2.50m | 8 | 3.62 |

| IC803 | | | |
|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 12.02 | 5 | 1.34 |
| 2 | -0.30m | 6 | 12.03 |
| 3 | 0.74 | 7 | 12.02 |
| 4 | -0.40m | 8 | 11.85 |

| IC804 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | -3.60 m |
| 2 | 3.31 |
| 3 | 5.07 |

| IC901 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 12.01 | 12 | 3.29 | 23 | 12.00 | 34 | 31.00 |
| 2 | 3.28 | 13 | -0.20m | 24 | 31.00 | 35 | 27.46 |
| 3 | -0.30m | 14 | -0.20m | 25 | -0.70m | 36 | 22.00 |
| 4 | -0.30m | 15 | -0.20m | 26 | 27.46 | 37 | -1.70m |
| 5 | 3.29 | 16 | 2.70m | 27 | 27.46 | 38 | -1.80m |
| 6 | 2.50m | 17 | 3.10m | 28 | 22.00 | 39 | 22.00 |
| 7 | 3.20m | 18 | 3.90m | 29 | -1.70m | 40 | 27.46 |
| 8 | 3.50m | 19 | 0.30m | 30 | -1.80m | 41 | 27.46 |
| 9 | 1.18 | 20 | 0.20m | 31 | 22 | 42 | -1.20m |
| 10 | 0.20m | 21 | 12.03 | 32 | 27.46 | 43 | 31.00 |
| 11 | -0.10m | 22 | 12.01 | 33 | 31.00 | 44 | 11.99 |

| IC805 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | 3.29 |
| 2 | -0.40m |
| 3 | 3.29 |
| 4 | 0.00 |
| 5 | 1.80 |

| IC806 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | 1.70m |
| 2 | 3.29 |
| 3 | 5.00 |

| IC809 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | 5.02 |
| 2 | -0.40m |
| 3 | 5.02 |
| 4 | 0.00 |
| 5 | 4.02 |

| IC808 | |
|---|---|
| Pin No. | Voltage (V) |
| 1 | 4.96 |
| 2 | -0.40m |
| 3 | 4.96 |
| 4 | 0.00 |
| 5 | 3.92 |

| IC601 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 1.77 | 9 | 3.17 | 17 | 1.88 | 25 | 3.34 | 33 | 1.86 | 41 | 2.30 | 49 | 2.30 | 57 | 1.30 |
| 2 | 23.00m | 10 | 1.23 | 18 | 20.80m | 26 | 1.65 | 34 | 7.50m | 42 | 2.30 | 50 | 2.30 | 58 | 1.30 |
| 3 | 0.75 | 11 | 3.30 | 19 | 0.76 | 27 | 1.64 | 35 | 7.60m | 43 | 2.30 | 51 | 2.3 | 59 | 1.41 |
| 4 | 28.20m | 12 | 3.24 | 20 | 0.89 | 28 | 6.30m | 36 | 3.24 | 44 | 9.40m | 52 | 2.3 | 60 | 1.41 |
| 5 | 6.70m | 13 | 3.30 | 21 | 7.60m | 29 | 6.30m | 37 | 38.00m | 45 | 43.10m | 53 | 7.60m | 61 | 1.41 |
| 6 | 7.70m | 14 | 3.24 | 22 | 7.60m | 30 | 6.30m | 38 | 7.60m | 46 | 48.00m | 54 | 3.24 | 62 | 3.41 |
| 7 | 1.83 | 15 | 3.24 | 23 | 7.60m | 31 | 2.20 | 39 | 3.30 | 47 | 0.00 | 55 | 1.3 | 63 | 1.60 |
| 8 | 7.80m | 16 | 7.60m | 24 | 3.30 | 32 | 18.60m | 40 | 2.30 | 48 | 1.88 | 56 | 1.30 | 64 | 7.70m |

| IC100 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 3.28 | 17 | 0.74 | 33 | 1.60 | 49 | 3.28 | 65 | 2.62 | 81 | 3.27 | 97 | 3.10m | 113 | 4.80m |
| 2 | 3.28 | 18 | 1.30 | 34 | 1.60 | 50 | 3.30 | 66 | 3.28 | 82 | 1.70 | 98 | 4.80m | 114 | 4.70m |
| 3 | 3.27 | 19 | 0.20m | 35 | 17.40m | 51 | 1.64 | 67 | 1.00m | 83 | 1.70 | 99 | 3.60m | 115 | 3.70m |
| 4 | 3.28 | 20 | 1.55 | 36 | 1.30m | 52 | 1.70m | 68 | 3.27 | 84 | 3.28 | 100 | 3.28 | 116 | 3.28 |
| 5 | 3.28 | 21 | 3.28 | 37 | 3.28 | 53 | 0.00 | 69 | 3.27 | 85 | 4.80m | 101 | 4.80m | 117 | 3.28 |
| 6 | 3.27 | 22 | 1.80 | 38 | 1.30m | 54 | 1.77 | 70 | 3.27 | 86 | 4.60m | 102 | 2.10m | 118 | 3.30 |
| 7 | 3.27 | 23 | 3.27 | 39 | 4.00m | 55 | 3.20 | 71 | 3.27 | 87 | 2.80m | 103 | 5.30m | 119 | 3.20m |
| 8 | 3.28 | 24 | 3.27 | 40 | 1.62 | 56 | 0.00 | 72 | 3.25 | 88 | 4.20m | 104 | 4.20m | 120 | 3.27 |
| 9 | 3.27 | 25 | 0.10m | 41 | 1.30m | 57 | 3.27 | 73 | 3.20 | 89 | 3.20 | 105 | 4.70m | 121 | 3.28 |
| 10 | 3.28 | 26 | 3.27 | 42 | 1.77 | 58 | 3.27 | 74 | 3.25 | 90 | 3.28 | 106 | 4.10m | 122 | 0 |
| 11 | 3.28 | 27 | 1.31 | 43 | 4.10m | 59 | 3.27 | 75 | 3.27 | 91 | 3.60m | 107 | 3.28 | 123 | 3.27 |
| 12 | 1.77 | 28 | 3.28 | 44 | 1.64 | 60 | 3.27 | 76 | 0.00 | 92 | 3.70m | 108 | 3.27 | 124 | 3.28 |
| 13 | 3.27 | 29 | 1.64 | 45 | 1.70 | 61 | 3.28 | 77 | 3.28 | 93 | 2.50m | 109 | 3.27 | 125 | 1.77 |
| 14 | 3.27 | 30 | 1.64 | 46 | 1.64 | 62 | 3.27 | 78 | 4.30m | 94 | 3.50m | 110 | 3.27 | 126 | 3.28 |
| 15 | 0.70m | 31 | 0.00 | 47 | 13.00m | 63 | 3.27 | 79 | 4.00m | 95 | 1.77 | 111 | 3.28 | 127 | 3.00m |
| 16 | 1.63 | 32 | 1.64 | 48 | 13.70m | 64 | 3.27 | 80 | 1.90m | 96 | 3.40m | 112 | 1.77 | 128 | 3.28 |

| IC102 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 3.29 | 11 | 3.28 | 21 | 0.40m | 31 | 3.10 | 41 | 1.40m |
| 2 | 3.27 | 12 | 3.28 | 22 | 0.40m | 32 | 4.20m | 42 | 3.21 |
| 3 | 3.28 | 13 | 3.30 | 23 | 0.30m | 33 | 0.70m | 43 | 3.26 |
| 4 | 0.00 | 14 | 3.29 | 24 | 0.30m | 34 | 3.28 | 44 | 3.30 |
| 5 | 3.28 | 15 | 3.29 | 25 | 3.30 | 35 | 1.71 | 45 | 3.27 |
| 6 | 3.28 | 16 | 3.29 | 26 | 0.50m | 36 | 3.28 | 46 | 3.27 |
| 7 | 3.30 | 17 | 3.29 | 27 | 0.30m | 37 | 1.10m | 47 | 1.90 |
| 8 | 3.28 | 18 | 3.29 | 28 | 0.20m | 38 | 3.26 | 48 | 2.00m |
| 9 | 3.28 | 19 | 0.50m | 29 | 2.50m | 39 | 3.25 | 49 | 3.27 |
| 10 | 0.00 | 20 | 0.40m | 30 | 2.70m | 40 | 3.25 | 50 | 2.20m |

## Display

| IC700 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
| 1 | 5.78 | 9 | 3.83 | 17 | 5.75 | 25 | 3.83 | 33 | 1.89 | 41 | 1.89 | 49 | 8.70m | 57 | 3.28 |
| 2 | 3.83 | 10 | 8.90m | 18 | 8.80m | 26 | 5.78 | 34 | 1.90 | 42 | 1.90 | 50 | 1.03 | 58 | 3.28 |
| 3 | 0.91 | 11 | 5.79 | 19 | 5.77 | 27 | 3.83 | 35 | 1.90 | 43 | 1.89 | 51 | 9.70m | 59 | 7.64 |
| 4 | 3.83 | 12 | 5.77 | 20 | 8.90m | 28 | 1.92 | 36 | 1.90 | 44 | 1.89 | 52 | 3.30 | 60 | 9.40m |
| 5 | 0.92 | 13 | 1.92 | 21 | 5.78 | 29 | 5.76 | 37 | 1.89 | 45 | 1.89 | 53 | 2.28 | 61 | 3.83 |
| 6 | 5.78 | 14 | 7.67 | 22 | 3.83 | 30 | 3.83 | 38 | 1.89 | 46 | 1.89 | 54 | 3.00 | 62 | 3.83 |
| 7 | 5.76 | 15 | 1.92 | 23 | 3.83 | 31 | 5.78 | 39 | 1.90 | 47 | 1.85 | 55 | 5.76 | 63 | 5.77 |
| 8 | 8.80m | 16 | 5.78 | 24 | 3.83 | 32 | 1.90 | 40 | 1.89 | 48 | 1.85 | 56 | 3.30 | 64 | 5.76 |

## Subwoofer (Rx)

**ICX601**

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|---|---|
| 1 | 1.79 | 17 | 1.91 | 33 | 1.87 | 49 | 2.30 |
| 2 | 49.90m | 18 | 10.90m | 34 | 38.10m | 50 | 2.30 |
| 3 | 0.77 | 19 | 1.07 | 35 | 39.80m | 51 | 2.30 |
| 4 | 0.85 | 20 | 1.07 | 36 | 3.23 | 52 | 2.30 |
| 5 | 26.40m | 21 | 37.40m | 37 | 38.10m | 53 | 37.60m |
| 6 | 35.10m | 22 | 37.40m | 38 | 39.90m | 54 | 3.30 |
| 7 | 1.82 | 23 | 37.40m | 39 | 3.30 | 55 | 0.46 |
| 8 | 0.00 | 24 | 3.34 | 40 | 2.30 | 56 | 1.33 |
| 9 | 3.26 | 25 | 3.34 | 41 | 2.30 | 57 | 1.32 |
| 10 | 3.26 | 26 | 2.30 | 42 | 2.30 | 58 | 1.33 |
| 11 | 3.34 | 27 | 2.10 | 43 | 2.30 | 59 | 0.92 |
| 12 | 3.34 | 28 | 37.80m | 44 | 0.00 | 60 | 0.90 |
| 13 | 3.25 | 29 | 37.80m | 45 | 0.00 | 61 | 0.92 |
| 14 | 3.24 | 30 | 37.80m | 46 | 0.00 | 62 | 0.94 |
| 15 | 3.24 | 31 | 2.28 | 47 | 0.00 | 63 | 2.10 |
| 16 | 37.80m | 32 | 12.90m | 48 | 1.89 | 64 | 37.60m |

**ICX901**

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|---|---|
| 1 | 11.98 | 12 | 3.20 | 23 | 12.03 | 34 | 31.00 |
| 2 | 3.21 | 13 | 2.40m | 24 | 31.00 | 35 | 30.90 |
| 3 | 2.10m | 14 | 3.20 | 25 | 0.00 | 36 | 22.00 |
| 4 | 2.10m | 15 | 3.20 | 26 | 30.90 | 37 | 0.00 |
| 5 | 3.20 | 16 | 2.50m | 27 | 30.90 | 38 | 0.00 |
| 6 | 1.67 | 17 | 3.31 | 28 | 22.00 | 39 | 22.00 |
| 7 | 3.31 | 18 | 3.20 | 29 | 0.00 | 40 | 30.89 |
| 8 | 1.67 | 19 | 2.50m | 30 | 0.00 | 41 | 30.89 |
| 9 | 1.12 | 20 | 2.50m | 31 | 22.00 | 42 | 0.00 |
| 10 | 2.50m | 21 | 12.03 | 32 | 30.90 | 43 | 31.00 |
| 11 | 2.40m | 22 | 11.97 | 33 | 31.00 | 44 | 12.03 |

**ICX801**

| Pin No. | Voltage (V) |
|---|---|
| 1 | 8.21 |
| 2 | 12.05 |
| 3 | 3.36 |
| 4 | 0.60m |
| 5 | 0.65 |
| 6 | 0.94 |
| 7 | 3.00 |
| 8 | 3.56 |

# CHAPTER 5. FLOWCHART

## [1] Troubleshooting

### 1. When unable to “pair” or “link” between the sound bar unit and subwoofer.

**( 1 ) Transmitting and receiving check.**

1. Is the TX and RX module supply + UN_SW5V ok?
   - NO → Check incoming supply. (Rx - CNP600X Pin no. 1 and 2) (Tx - CNP502 Pin no. 1 and 2)
   - YES ↓
2. Is the communication signal ( $I^2C$ ) ok ? (Fig. 1 - During AUDIO IN function) (Fig. 2a & 2b - During HDMI 1 / 2 function)
   - NO → Is the module FFC loose ?

During AUDIO IN function

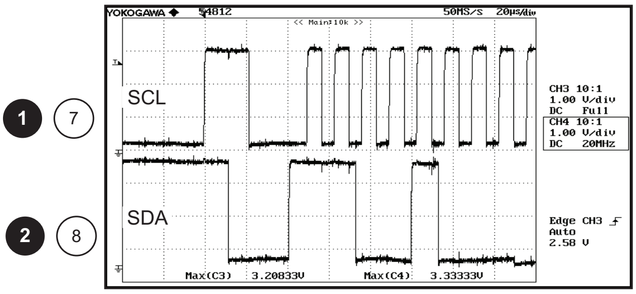



**Fig. 1 : AUDIO IN function waveform**

During HDMI 1 / 2 function

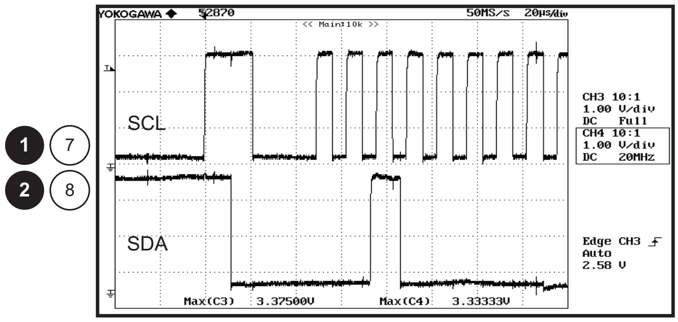



**Fig. 2a : HDMI 1 function waveform**

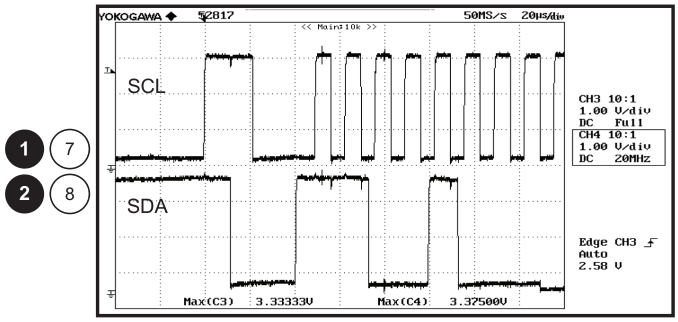



**Fig. 2b : HDMI 2 function waveform**

**( 2 ) Audio does not operate normally**

**No sound is produced at the subwoofer.**

1. Is the Tx and Rx module supply + UN_SW5V ok?
   - YES ↓
2. Is the communication signal ( $I^2S$ ) ok ? (Figure 3a and 3b - for normal operation) Check : Tx - CNP502 Pin no. 13, 14 and 17. Rx - CNP600X Pin no. 22, 23.
   - NO → Is the module FFC loose ?

During HDMI function

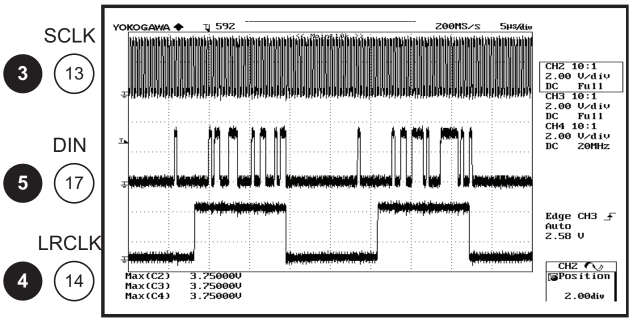



**Fig. 3a : 1²S Signal waveform**

During AUDIO IN function

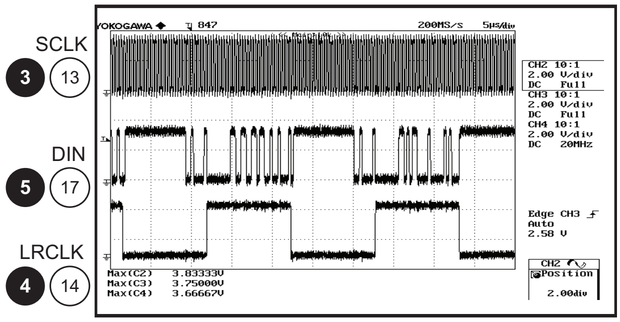



**Fig. 3b : 1²S Signal waveform**

NOTE : All waveforms are tapped from CNP502 (MAIN / AMPLIFIER PWB-A1)

# CHAPTER 6. MAJOR PART DRAWING

## [1] Function Table Of IC

### IC500 RH-IXA348AW00 : SYSTEM MICROCONTROLLER (IXA348AW) (1/5)

| Pin No. | NAME | PORT_TYPE | INPUT/ OUTPUT | FORM | SOFT PULL-UP | EXT. PULL UP | FUNCTION OUTLINE |
|---|---|---|---|---|---|---|---|
| 1 | NO USE | P96/ANEX1 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 2 | NO USE | P95/ANEX0 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |
| 3 | NO USE | P94 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | Fix "L" |
| 4 | NO USE | P93 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | Fix "L" |
| 5 | NO USE | P92/TB2IN | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | Fix "L" |
| 6 | NO USE | P91/TB1IN | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |
| 7 | WMDL_RESET | P90/TB1IN | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | WIRELESS MODULE RESET CONTROL.<br>Pull to ground for active reset.<br>P.OFF : H<br>P.ON : L |
| 8 | BYTE | BYTE | INPUT | Schmitt Input | - | NO | Connect to VSS (GND) |
| 9 | CNVSS | CNVSS | INPUT | Schmitt Input | - | NO | Pull down connect to VSS (GND) |
| 10 | XCIN | P87/XCIN | INPUT | CMOS INPUT/OUTPUT | OFF | NO | Sub-clock 32.768kHz |
| 11 | XCOUT | P86/XCOUT | OUTPUT | CMOS INPUT/OUTPUT | | NO | Sub-clock 32.768kHz |
| 12 | RESET | RESET | INPUT | Schmitt Input | - | YES | Micom RESET |
| 13 | X_OUT | XOUT | OUTPUT | CMOS OUTPUT | - | NO | Main clock 9.8MHz |
| 14 | GND | VSS | - | - | - | - | Connect to VSS (GND) |
| 15 | X_IN | XIN | INPUT | CMOS INPUT | - | NO | Main clock 9.8MHz |
| 16 | VCC | VCC1 | - | -<br>- | - | - | Micom supply 3.3V<br>Back up supply |
| 17 | NMI | P85/NMI | INPUT | CMOS INPUT (Schmitt Input) | - | YES | Pull up connect to VCC |
| 18 | RX_IN | P84/INT2 | INPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Remote control input |
| 19 | SYS_STOP | P83/INT1 | INPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | [INT1]AC Power Fail Detection. |
| 20 | HDMI_INT | P82/INT0 | INPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | [INT0]CEC Port interrupt from the microcontroller.<br>L-->H at POWER ON |
| 21 | HDMI_RST | P81 | INPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | HDMI Sub MCU RESET.<br>H : NORMAL , L : RESET |
| 22 | NO USE | P80 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | Fix "L" |
| 23 | NO USE | P77 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | Fix "L" |
| 24 | NO USE | P76 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |
| 25 | NO USE | P75/TA2IN | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | | NO | Fix "L" |
| 26 | NO USE | P74/TA2OUT | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |

## IC500 RH-IXA348AW00 : SYSTEM MICROCONTROLLER (IXA348AW) (2/5)

| Pin No. | NAME / PORT_TYPE | INPUT/ OUTPUT | FORM | SOFT PULL-UP | EXT. PULL UP | FUNCTION OUTLINE |
|---|---|---|---|---|---|---|
| 27 | NO USE<br>P73/CTS2/RTS2/TA1IN | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |
| 28 | NO USE<br>P72/CLK2/TA1OUT | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |
| 29 | SCL<br>P71/RXD2/SCL2/TA0IN | OUTPUT | Nch open (Schmitt Input) | - | YES | [I2Cbus]DIR/WIRELESSS_MODULE/TI_DAP/ HDMI<br>Micom IF clock<br>(*1)Nch open drain |
| 30 | SDA<br>P70/TXD2/SDA2/TA0OUT | INPUT/ OUTPUT | Nch open (Schmitt Input) | - | YES | [I2Cbus]DIR/WIRELESSS_MODULE/TI_DAP/ HDMI<br>Micom IF data I/O<br>(*1)Nch open drain |
| 31 | FL_SDATA/FLASH_TXD<br>P67/TXD1/SDA1 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | FL DRIVER DATA OUTPUT<br>FLASH WRITER Data Output |
| 32 | FL_CS/FLASH_RXD<br>P66/RXD1/SCL1 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | FL DRIVER CHIP SELECT OUTPUT<br>FLASH Writer Data input |
| 33 | FL_SCK/FLASH_SCLK<br>P65/CLK1 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | FL DRIVER CLOCK OUTPUT<br>FLASH Writer Clock Input |
| 34 | FL_RESET/FLASH_BUSY<br>P64/CTS1/RTS1/CTS0/ CLKS1 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | FL DRIVER RESET<br>FLASH Writer Busy output. BUSY: 'H' |
| 35 | DB_SDA<br>P63/TXD0/SDA0 | INPUT/ OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | [I2Cbus]DOLBY IC IF data I/O |
| 36 | DB_SCL<br>P62/RXD0/SCL0 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | [I2Cbus]DOLBY IC IF clock |
| 37 | DB_RESET<br>P61/CLK0 | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Dolby RESET.<br>Active "L" |
| 38 | DB_SCP_IRQ<br>P60/CTS0/RTS0 | INPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | DOLBY IC (OPTION) |
| 39 | NO USE<br>P57/CLKOUT | OUTPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Fix "L" |
| 40 | DB_SCP_BSY<br>P56 | INPUT | CMOS INPUT/OUTPUT | OFF | NO | DOLBY IC (OPTION) |
| 41 | FLASH_EPM<br>P55 | INPUT | CMOS INPUT/OUTPUT (Schmitt Input) | OFF | NO | Pull down connect to VSS (GND)+G55 |
| 42 | NO USE<br>P54 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 43 | DAP_MUTE<br>P53 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | TI_DAP MUTE CONTROL |
| 44 | DAP_PWDN<br>P52 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Audio Processor Power Down |
| 45 | DAP_RESET<br>P51 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Audio Processor Reset. In reset mode by setting the RESET terminal low. |
| 46 | FLASH_CE<br>P50 | INPUT | CMOS INPUT/OUTPUT | OFF | YES | Pull up connect to VCC |
| 47 | NO USE<br>P47 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 48 | AMP_SD/BKND_ERR<br>P46 | INPUT | CMOS INPUT/OUTPUT | OFF | NO | AMP POWER Control |
| 49 | AMP_OTW<br>P45 | INPUT | CMOS INPUT/OUTPUT | OFF | NO | FAULT -TH-WARN when FAULT CONDITIONS |
| 50 | NO USE<br>P44 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |

**IC500 RH-IXA348AW00 : SYSTEM MICROCONTROLLER (IXA348AW) (3/5)**

| Pin No. | NAME / PORT_TYPE | INPUT/ OUTPUT | FORM | SOFT PULL-UP | EXT. PULL UP | FUNCTION OUTLINE |
|---|---|---|---|---|---|---|
| 51 | NO USE<br>P43 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 52 | NO USE<br>P42 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 53 | NO USE<br>P41 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 54 | NO USE<br>P40 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 55 | NO USE<br>P37 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 56 | DIR_GPO0<br>P36 | INPUT | CMOS INPUT/OUTPUT | | NO | Dir General Purpose Port 0 |
| 57 | DIR_GPO1<br>P35 | INPUT | CMOS INPUT/OUTPUT | OFF | NO | Dir General Purpose Port 1 |
| 58 | DIR_RST<br>P34 | OUTPUT | CMOS INPUT/OUTPUT | | NO | DIR Reset+G149<br>Reset="L" |
| 59 | NO USE<br>P33 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 60 | NO USE<br>P32 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 61 | NO USE<br>P31 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 62 | VCC<br>VCC2 | - | - | - | - | Micom supply 3.3V<br>Back up supply |
| 63 | NO USE<br>P30 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 64 | GND<br>VSS | - | - | - | - | Connect to VSS (GND) |
| 65 | NO USE<br>P27 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 66 | NO USE<br>P26 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 67 | NO USE<br>P25 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 68 | NO USE<br>P24 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 69 | NO USE<br>P23 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 70 | NO USE<br>P22 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 71 | NO USE<br>P21 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 72 | NO USE<br>P20 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 73 | NO USE<br>P17 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 74 | DEMO_LED<br>P16/INT4 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | DEMO LED CONTROL<br>DEMO ON/OFF : On ECO: Of+G55f |
| 75 | NO_USE<br>P15/INT3 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 76 | NO USE<br>P14 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |

## IC500 RH-IXA348AW00 : SYSTEM MICROCONTROLLER (IXA348AW) (4/5)

| Pin No. | NAME / PORT_TYPE | INPUT/ OUTPUT | FORM | SOFT PULL-UP | EXT. PULL UP | FUNCTION OUTLINE |
|---|---|---|---|---|---|---|
| 77 | NO USE / P13 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 78 | NO USE / P12 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 79 | NO USE / P11 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 80 | NO USE / P10 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 81 | LVL_DETECT / P07/AN07 | INPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | OFF | NO | LEVEL DETECT |
| 82 | AVCK1 / P06/AN06 | INPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | OFF | YES | [AD]D1.8V Abnormal voltage detection |
| 83 | AVCK2 / P05/AN05 | INPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | OFF | YES | [AD]A3.3V Abnormal voltage detection |
| 84 | NO USE / P04/AN04 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 85 | NO USE / P03/AN03 | OUTPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 86 | NO USE / P02/AN02 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | Fix "L" |
| 87 | CE_0 / P01/AN01 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | HDMI Module Supply Control 3.3V<br>During ECO: Off During DEMO/P ON: On |
| 88 | CE_1 / P00/AN00 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | HDMI Module Supply Control 1.8V<br>During ECO: Off During DEMO/P ON: On |
| 89 | CE_2 / P107/AN7/KI3 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | HDMI Module Supply Control 5.0V<br>During ECO: Off During DEMO/P ON: On |
| 90 | POWER (DC RELAY) / P106/AN6/KI2 | OUTPUT | CMOS INPUT/OUTPUT | OFF | NO | (DC_RELAY) MAIN POWER CONTROL output<br>H:FPOWER ON L:FPOWER OFF |
| 91 | SYS-PROTECT / P105/AN5/KI1 | INPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | OFF | YES | System supply abnormal detection |
| 92 | KEY_1(POWER) / P104/AN4/KI0 | INPUT | CMOS INPUT/OUTPUT | OFF | YES | POWER KEY INPUT |
| 93 | KEY_2 / P103/AN3 | INPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | | YES | A/D KEY INPUT |
| 94 | NO USE / P102/AN2 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 95 | AREA / P101/AN1 | INPUT ANA-LOG/ DIGITAL | CMOS INPUT/OUTPUT | | YES | Destination |
| 96 | GND / AVSS | - | - | - | - | VSS A/D reference port.<br>Connect to VSS (GND) |
| 97 | NO USE / P100/AN0 | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |
| 98 | VREF / VREF | - | - | - | - | Voltage A/D reference port.<br>Connect to VCC |
| 99 | AVCC / AVCC | - | - | - | - | Supply A/D reference port.<br>Connect to VCC |
| 100 | NO USE / P97/ADTRG | OUTPUT | CMOS INPUT/OUTPUT | | NO | Fix "L" |

## IC500 RH-IXA348AW00 : SYSTEM MICROCONTROLLER (IXA348AW) (5/5)

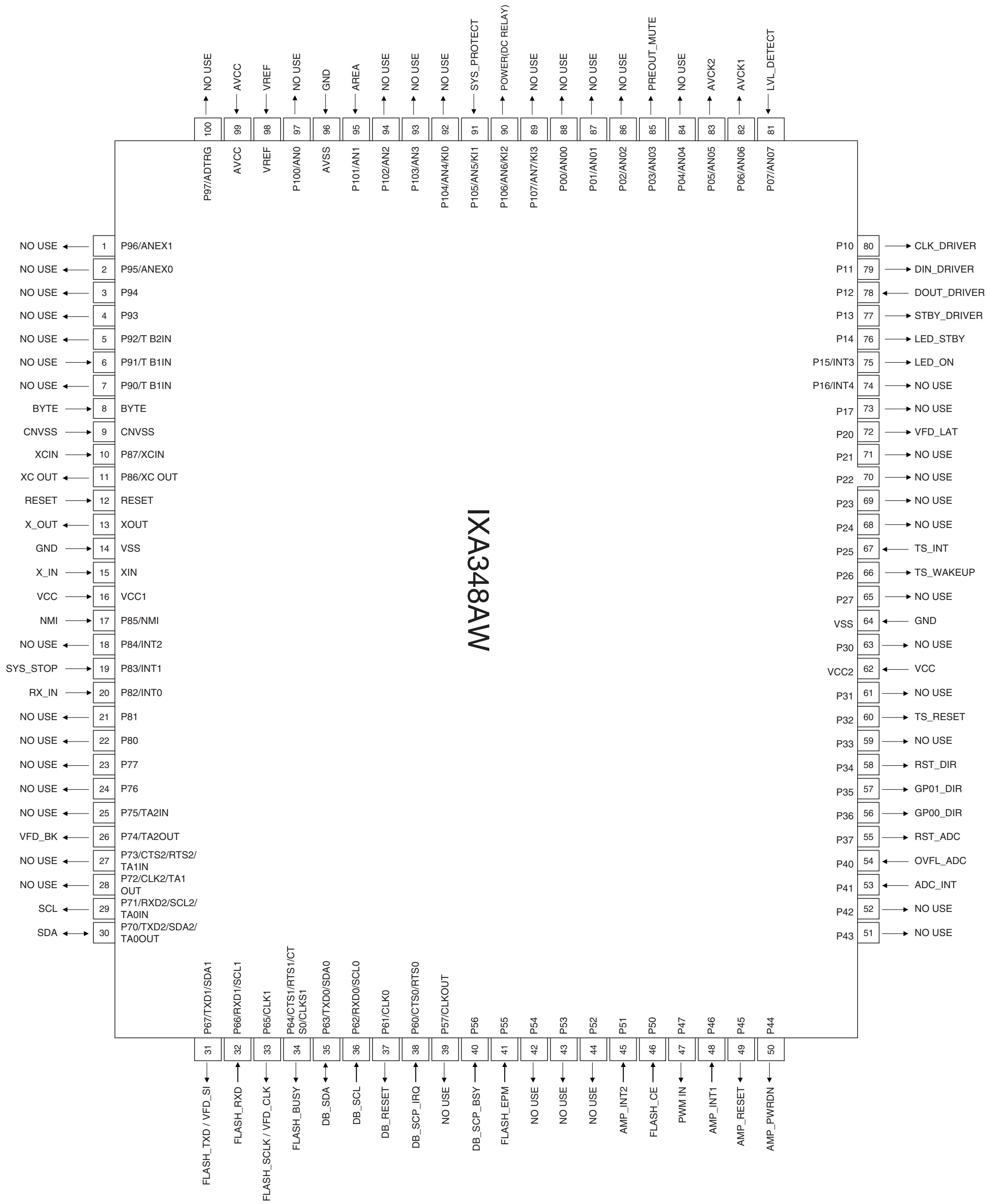



**Figure 6-1 BLOCK DIAGRAM OF IC**

### IC1 VHiEP92A2E : HDMI IC (EP92A2E) (1/4)

Unless otherwise stated, unused input pins must be tied to ground, and unused output pins left open.

#### HDMI Input Ports

| Name | In/Out | Description |
|---|---|---|
| RXC0- | IN | Differential Clock Input Pair for HDMI Input Port 0 |
| RXC0+ | IN | Differential Clock Input Pair for HDMI Input Port 0 |
| RX00- | IN | Differential Data Input Pair0 for HDMI Input Port 0 |
| RX00+ | IN | Differential Data Input Pair0 for HDMI Input Port 0 |
| RX10- | IN | Differential Data Input Pair1 for HDMI Input Port 0 |
| RX10+ | IN | Differential Data Input Pair1 for HDMI Input Port 0 |
| RX20- | IN | Differential Data Input Pair2 for HDMI Input Port 0 |
| RX20+ | IN | Differential Data Input Pair2 for HDMI Input Port 0 |
| RXC1- | IN | Differential Clock Input Pair for HDMI Input Port 1 |
| RXC1+ | IN | Differential Clock Input Pair for HDMI Input Port 1 |
| RX01- | IN | Differential Data Input Pair0 for HDMI Input Port 1 |
| RX01+ | IN | Differential Data Input Pair0 for HDMI Input Port 1 |
| RX11- | IN | Differential Data Input Pair1 for HDMI Input Port 1 |
| RX11+ | IN | Differential Data Input Pair1 for HDMI Input Port 1 |
| RX21- | IN | Differential Data Input Pair2 for HDMI Input Port 1 |
| RX21+ | IN | Differential Data Input Pair2 for HDMI Input Port 1 |
| RXC2- | IN | Differential Clock Input Pair for HDMI Input Port 2 |
| RXC2+ | IN | Differential Clock Input Pair for HDMI Input Port 2 |
| RX02- | IN | Differential Data Input Pair0 for HDMI Input Port 2 |
| RX02+ | IN | Differential Data Input Pair0 for HDMI Input Port 2 |
| RX12- | IN | Differential Data Input Pair1 for HDMI Input Port 2 |
| RX12+ | IN | Differential Data Input Pair1 for HDMI Input Port 2 |
| RX22- | IN | Differential Data Input Pair2 for HDMI Input Port 2 |
| RX22+ | IN | Differential Data Input Pair2 for HDMI Input Port 2 |
| EXT_RES | IN | External Termination Resistor for all HDMI Input Ports. A resistor should tie this pin to AVDD33. 470Ω is recommended. |

#### HDMI Output Ports

| Name | In/Out | Description |
|---|---|---|
| TXC- | OUT | Differential Clock Output Pair for HDMI Output |
| TXC+ | OUT | Differential Clock Output Pair for HDMI Output |
| TX0- | OUT | Differential Data Output Pair0 for HDMI Output |
| TX0+ | OUT | Differential Data Output Pair0 for HDMI Output |
| TX1- | OUT | Differential Data Output Pair1 for HDMI Output |
| TX1+ | OUT | Differential Data Output Pair1 for HDMI Output |
| TX2- | OUT | Differential Data Output Pair2 for HDMI Output |
| TX2+ | OUT | Differential Data Output Pair2 for HDMI Output |
| SWING | Analog | Voltage Swing Adjust for HDMI Output. A resistor should tie this pin to PVDD18. This resistance determines the amplitude of the voltage swing. 390Ω is recommended. |
| COMR | Analog | Common ground for pull-down resistors of HDMI Data Output |

#### ARC RX Pins

| Name | In/Out | Description |
|---|---|---|
| ARC+/- | IN/OUT | AC coupled ARC input pins |

**IC1 VHiEP92A2E : HDMI IC (EP92A2E) (2/4)**

### Audio Inputs/Outputs

| Name | In/Out | Description |
|---|---|---|
| MCLK | OUT | System Clock output for audio DAC (128/256/384/512 * $F_{Sampling_Clock}$. Connecting a pull-up (logic 1) or pull-down (logic 0) resistor at this pin defines bit 4 of the slave IIC Address |
| IIS_SCK | OUT | IIS SCK output for IIS audio port. Sampling clock output for DSD. |
| IIS_WS | OUT | IIS WS output for all IIS audio ports.<br>DSD audio output port 0 (Right Channel). |
| IIS_SD0 | OUT | IIS SD output for audio port 0 or HBR audio output.<br>DSD audio output port 0 (Left Channel). |
| IIS_SD1 | OUT | IIS SD output for audio port 1 or HBR audio output.<br>DSD audio output port 1 (Right Channel). |
| IIS_SD2 | OUT | IIS SD output for audio port 2 or HBR audio output.<br>DSD audio output port 1 (Left Channel). |
| IIS_SD3 | OUT | IIS SD output for audio port 3 or HBR audio output.<br>DSD audio output port 2 (Right Channel). |
| SPDIF | OUT | SPDIF output.<br>DSD audio output port 2 (Left Channel). |
| IIS_SCK_IN | IN | IIS SCK input for regenerated IIS audio. |
| IIS_WS_IN | IN | IIS WS input for regenerated IIS audio. |
| IIS_SD_IN | IN | IIS SD input for regenerated IIS audio. |

### DDC/IIC/MCU/EEPROM

| Name | In/Out | Description |
|---|---|---|
| INTb | OUT | Interrupt signal. Asserted when interrupt requests occur. This pin is open drain output when programmed as active low and external pull-up resistor is needed. This pin is push-pull when programmed as active high. Connect this pin to the GPIO pin of the HDMI controller externally. |
| SCL2/SCL3 | IO | SCL signal for HDMI and HDCP Control Logic. Connect this pin to the GPIO pin of the HDMI controller with pull up resistor externally. |
| SDA2/SDA3 | IO | SDA signal for HDMI and HDCP Control Logic. Connect this pin to the GPIO pin of the HDMI controller with pull up resistor externally. |
| DDC0_SCL | IN | IIC SCL signal for HDMI Receiver DDC Port 0 |
| DDC0_SDA | IO | IIC SDA signal for HDMI Receiver DDC Port 0 |
| DDC1_SCL | IN | IIC SCL signal for HDMI Receiver DDC Port 1 |
| DDC1_SDA | IO | IIC SDA signal for HDMI Receiver DDC Port 1 |
| DDC2_SCL | IN | IIC SCL signal for HDMI Receiver DDC Port 2 |
| DDC2_SDA | IO | IIC SDA signal for HDMI Receiver DDC Port 2 |
| DDCR_SCL | IN | IIC SCL signal for Repeater DDC Port |
| DDCR_SDA | IO | IIC SDA signal for Repeater DDC Port |
| DDCT_SCL | OUT | IIC SCL signal for HDMI Output DDC Port |
| DDCT_SDA | IO | IIC SDA signal for HDMI Output DDC Port |

### Misc. Pins

| Name | In/Out | Description |
|---|---|---|
| X_IN | Analog | External Crystal Input, 18.432 Mhz. Connect this pin to the GPIO pin of the HDMI controller externally. |
| PLL_XFC_A | Analog | For connecting a capacitor to ground for on-chip PLL |
| EXT_RSTb | IN | External Reset input (Active Low) with internal weak pull-up. Connect this pin to the GPIO pin of the HDMI controller externally. |
| REG_VIN | PWR | 5V input to on-chip Power Regulator |
| REG_VO1 | OUT | Programmable voltage output from on-chip Power Regulator. The selectable output voltage are 2.8V, 3.0V, 3.2V and 3.4V |
| REG_VO2 | OUT | Programmable voltage output from on-chip Power Regulator. The selectable output voltage are 1.5V, 1.6V, 1.7V and 1.8V |

## IC1 VHiEP92A2E : HDMI IC (EP92A2E) (3/4)

### HDMI Controller Pins[1]

| Name | In/Out | Description |
|---|---|---|
| MCU_RSTb | IN | External Reset (active low) with on-chip pull-up. When this pin is asserted low, the HDMI controller is totally reset. |
| MCU_OP | IN | HDMI Controller operation mode.<br>0: Normal mode<br>1: ICP (In Circuit Flash Programming) mode |
| MCU_XIN | IN | External Crystal Input, 18.432 Mhz |
| MCU_XOUT | OUT | External Crystal Output, 18.432 Mhz. |
| P2[7:0] | IN/OUT | GPIO port 2 with programmable Open Drain capability. |
| P1[4:0] | IN/OUT | GPIO port 1 or Keyboard Interrupt inputs with internal 20KΩ pull-up to VDD |
| P3[7:4, 1:0] | OD IN/OUT | Open Drain I/O port 3. P3 shared with IIC. |
| P4[5, 1:0] | IN/OUT | GPIO port 4 or External Interrupt inputs |
| P7[1:0] | IN/OUT | Open Drain I/O port 7. P7[1:0] shared with Serial Port. |

**NOTES:**

1. Customer shall follow the pre-defined I/O pins application which shown in reference circuit for the correct operation of this chip.

### Power Pins

| Name | In/Out | Description |
|---|---|---|
| AVDD | PWR | HDMI Receiver Analog Power (1.8V) |
| PVDD | PWR | HDMI Receiver PLL Analog Power (1.8V) |
| AVDD33 | PWR | HDMI Termination Power (3.3V) |
| AVDD18 | PWR | HDMI Transmitter Analog Power (1.8V) |
| PVDD18 | PWR | HDMI Transmitter PLL Analog Power (1.8V) |
| AVSS, PVSS | GND | Analog Ground |
| VDDE | PWR | I/O Power (3.3V) |
| VSSE | GND | I/O Ground |
| VDD | PWR | Internal Logic Power (1.8V) |
| VSS | GND | Logic Ground |
| VDD_PLL | GND | Audio PLL Power (3.3V) |
| VSS_PLL | GND | Audio PLL Ground |
| MCU_VDD | GND | HDMI Controller Power (3.3V) |

**IC1 VHiEP92A2E : HDMI IC (EP92A2E) (4/4)**

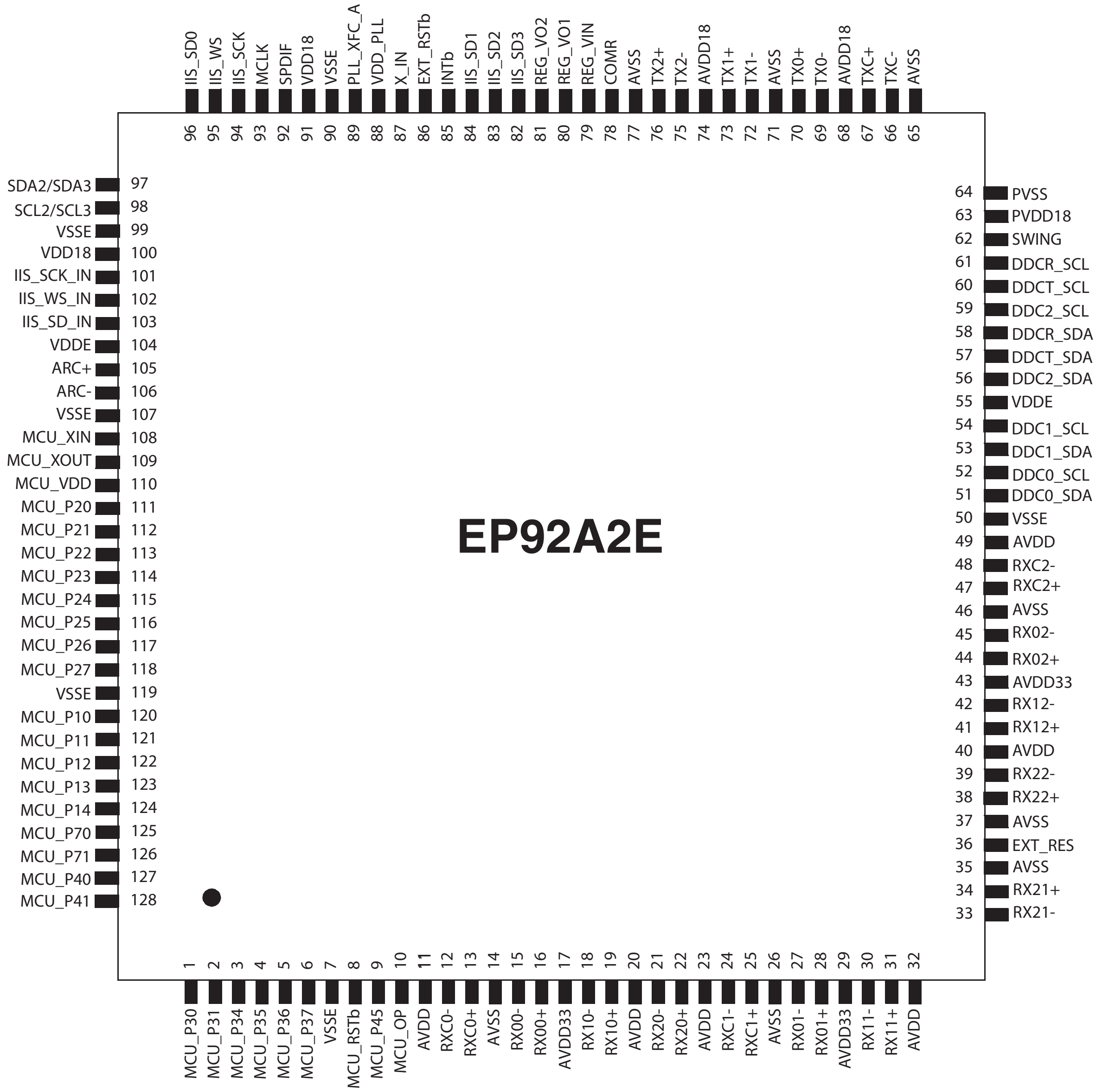
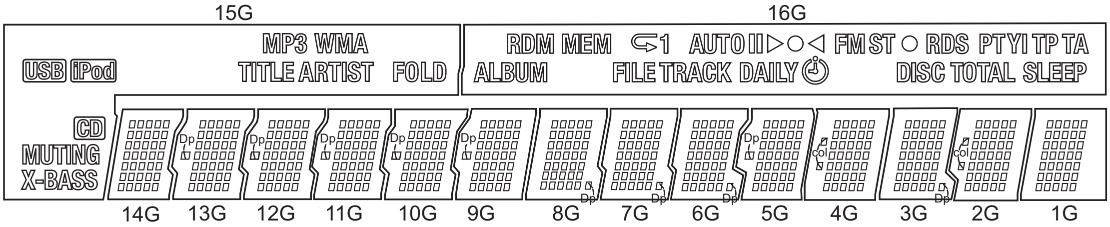


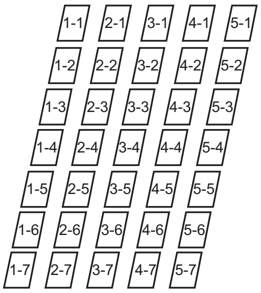

**Figure 6-2 BLOCK DIAGRAM OF IC**

## [2] FL Display

FL700 VVKNA16SM21-1

GRID ASSIGNMENT




ANODE CONNECTION

| | 16G | 15G | 14G | 13G | 12G | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | (timer) | | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 | 1— 1 |
| P2 | DAILY | | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 | 2— 1 |
| P3 | TRACK | | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 | 3— 1 |
| P4 | AUTO | | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 | 4— 1 |
| P5 | FILE | | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 | 5— 1 |
| P6 | B | | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 | 1— 2 |
| P7 | 1 (upper) | | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 | 2— 2 |
| P8 | (repeat) | | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 | 3— 2 |
| P9 | A | | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 | 4— 2 |
| P10 | CHAP | | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 | 5— 2 |
| P11 | MEM | | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 | 1— 3 |
| P12 | ALBUM | | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 | 2— 3 |
| P13 | RDM | | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 | 3— 3 |
| P14 | (camera) | | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 | 4— 3 |
| P15 | II | FOLD | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 | 5— 3 |
| P16 | ▷ | 1 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 | 1— 4 |
| P17 | ○ (left) | S.BASS | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 | 2— 4 |
| P18 | ◁ | ARTIST | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 | 3— 4 |
| P19 | 1 (lower) | WMA | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 | 4— 4 |
| P20 | 2 | TITLE | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 | 5— 4 |
| P21 | 3 | MP3 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 | 1— 5 |
| P22 | 4 | AAC | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 | 2— 5 |
| P23 | FM | dts | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 | 3— 5 |
| P24 | ST | + | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 | 4— 5 |
| P25 | ○ (right) | DAB | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 | 5— 5 |
| P26 | DISC | DPLII | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 | 1— 6 |
| P27 | RDS | DDIGITAL | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 | 2— 6 |
| P28 | TOTAL | iPod | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 | 3— 6 |
| P29 | PTYI | USB | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 | 4— 6 |
| P30 | SLEEP | DVD | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 | 5— 6 |
| P31 | TP | BD | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 | 1— 7 |
| P32 | TA | CD | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 | 2— 7 |
| P33 | | DivX | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 | 3— 7 |
| P34 | | MUTING | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 | 4— 7 |
| P35 | | X-BASS | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 | 5— 7 |
| P36 | | | | Dp | Dp | Dp | Dp | Dp | Dp | Dp | Dp | Dp | col | Dp | col | |

OUTER DIMENSIONS




PIN CONNECTION

| PIN NO. | 66 | 65 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONNECTION | F2 | NP | F2 | NP | NP | 16G | 15G | P35 | P34 | P33 | P32 | P31 | P30 | P29 | P28 | P27 | P26 | P25 | P24 | NC | P23 | P22 | P21 | P20 | P19 | P18 | P17 | NC | P16 | NC | P15 | P14 | P13 |

| 33 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P12 | P11 | P10 | P9 | P8 | P7 | P6 | P5 | P4 | P3 | P2 | P1 | P36 | NC | 14G | 13G | 12G | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G | NP | NP | F1 | NP | F1 |

Note
1) Fn : Filament Pin
2) NP : No pin
3) Pn : Anode pin
4) NG : Grid pin
5) NC : No connected pin

# CHAPTER 7. DIAGRAMS

## [1] Main (Tx) & Subwoofer (Rx) Block Diagram

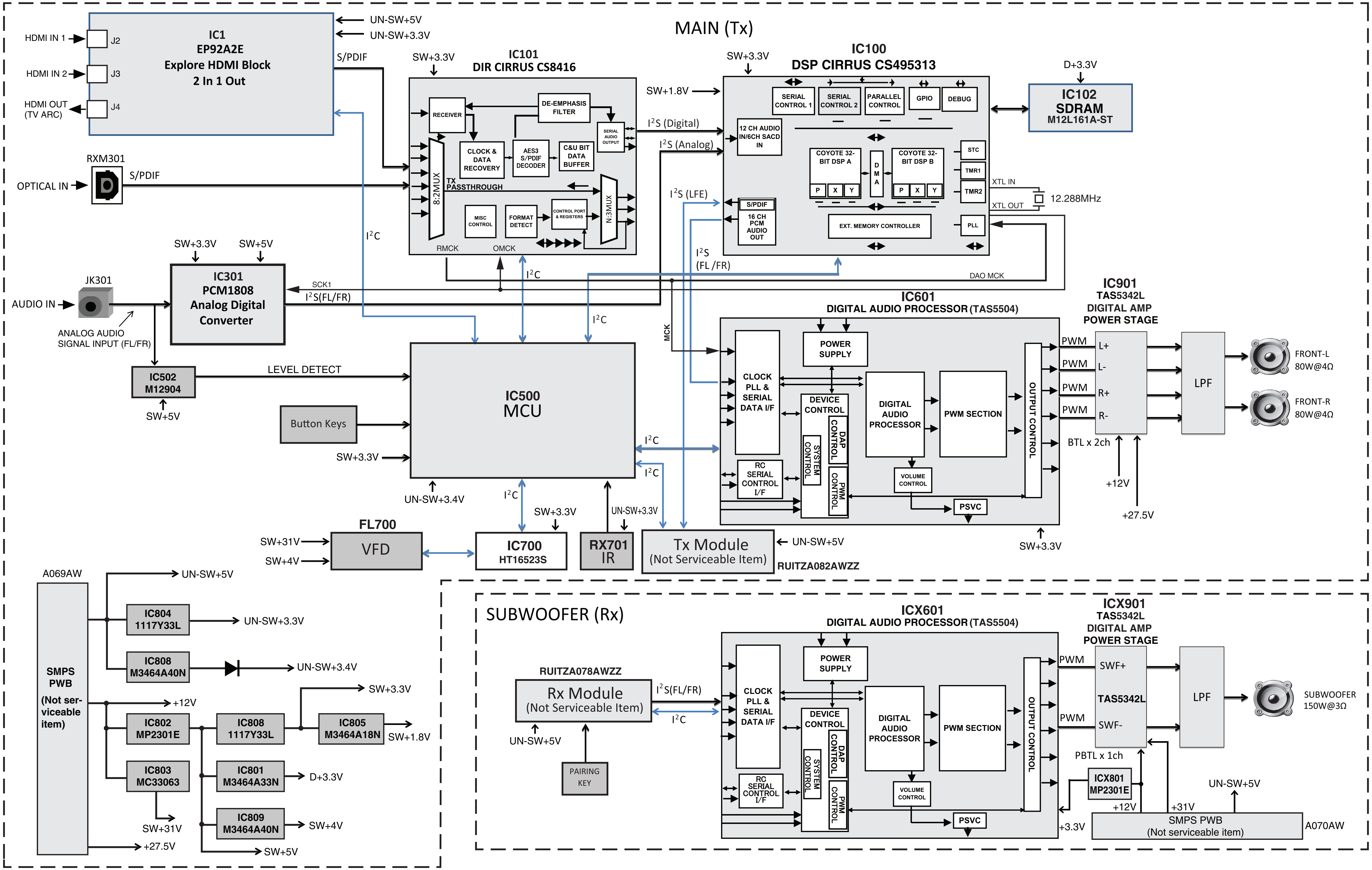



Figure 7-1: MAIN (Tx) & SUBWOOFER (Rx) BLOCK DIAGRAM

**-MEMO-**

**-MEMO-**

# CHAPTER 8. CIRCUIT SCHEMATICS AND PARTS LAYOUT

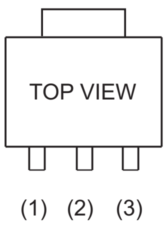
## [1] Notes On Schematic Diagram

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means pico-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/ withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
- Parts marked with “⚠” are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

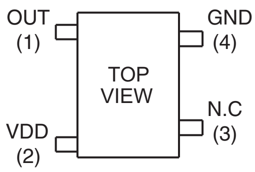
### PWB Switch Location

| REF. NO | DESCRIPTION | POSITION |
|---|---|---|
| SW701 | ON/STAND-BY | ON -- OFF |
| SW702 | SOURCE | ON -- ON |
| SW703 | PAIRING | ON -- ON |
| SW704 | EQ | ON -- ON |
| SW705 | VOLUME (-) | MAX -- MIN |
| SW706 | VOLUME (+) | MAX -- MIN |

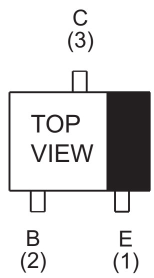
## [2] Types Of Transistor And LED



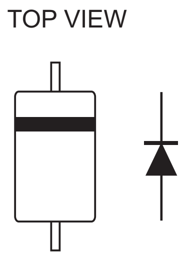

1117Y33



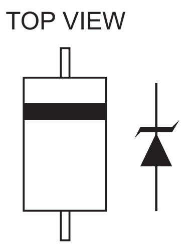

PST8227U



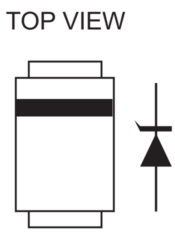

KRC102S
KRC104S
KTA1544T



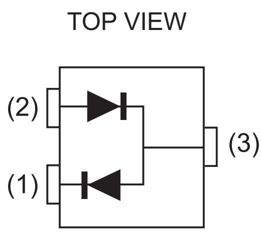

DA1010++



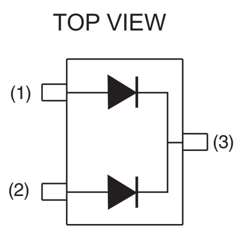

EXA686WJ
EXA701WJ
EXA716WJ
EXA738WJ
EXA694WJ



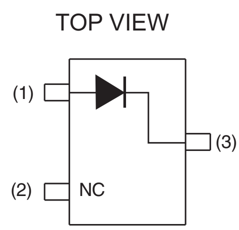

SS14++




KDS226




BAT54




BAS16

## [3] Schematic Diagram

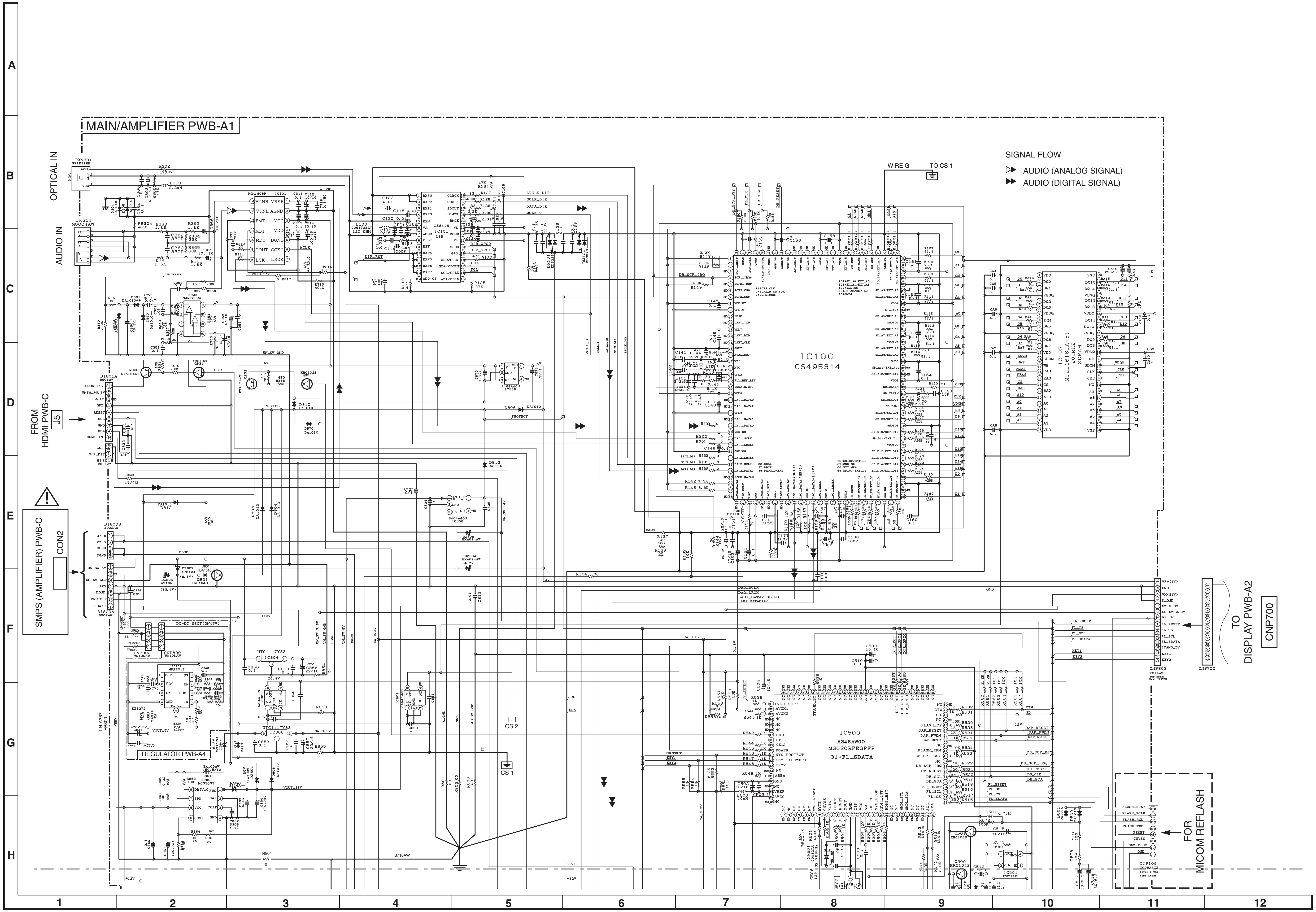



Figure 8-1: MAIN (TX) SECTION SCHEMATIC DIAGRAM (1/2)

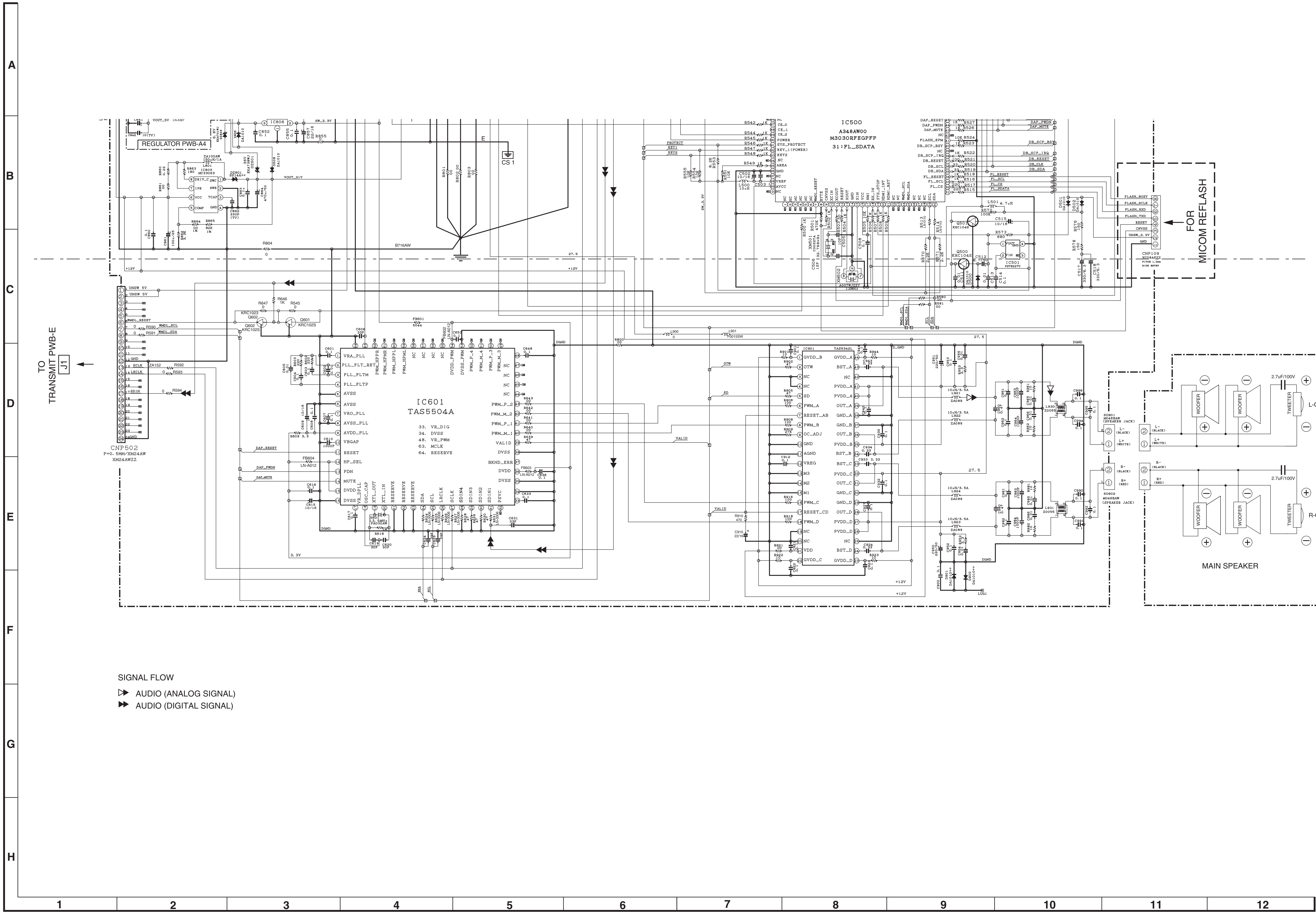



Figure 8-2: MAIN (TX) SECTION SCHEMATIC DIAGRAM (2/2)

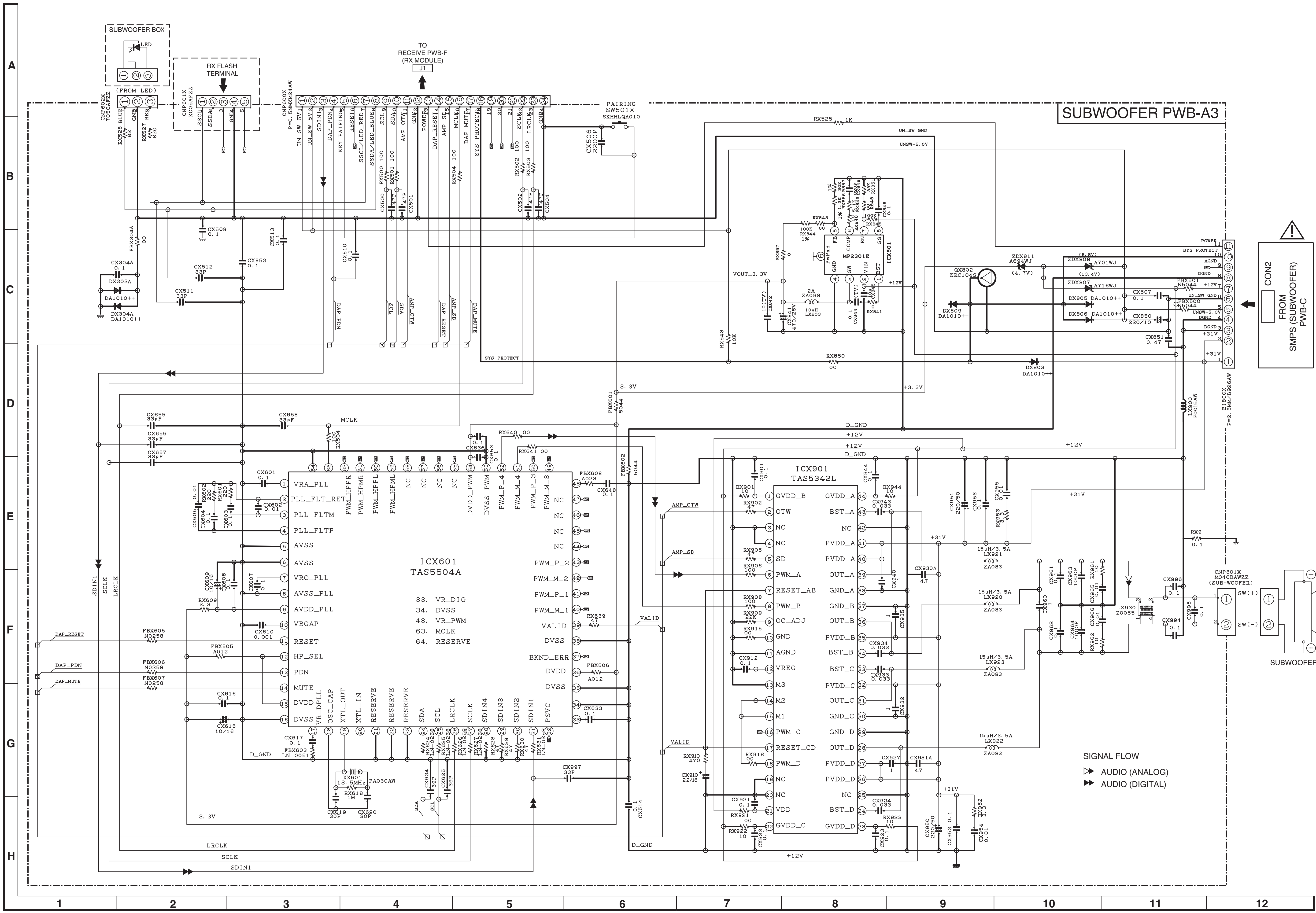



Figure 8-3: SUBWOOFER (RX) SECTION SCHEMATIC DIAGRAM

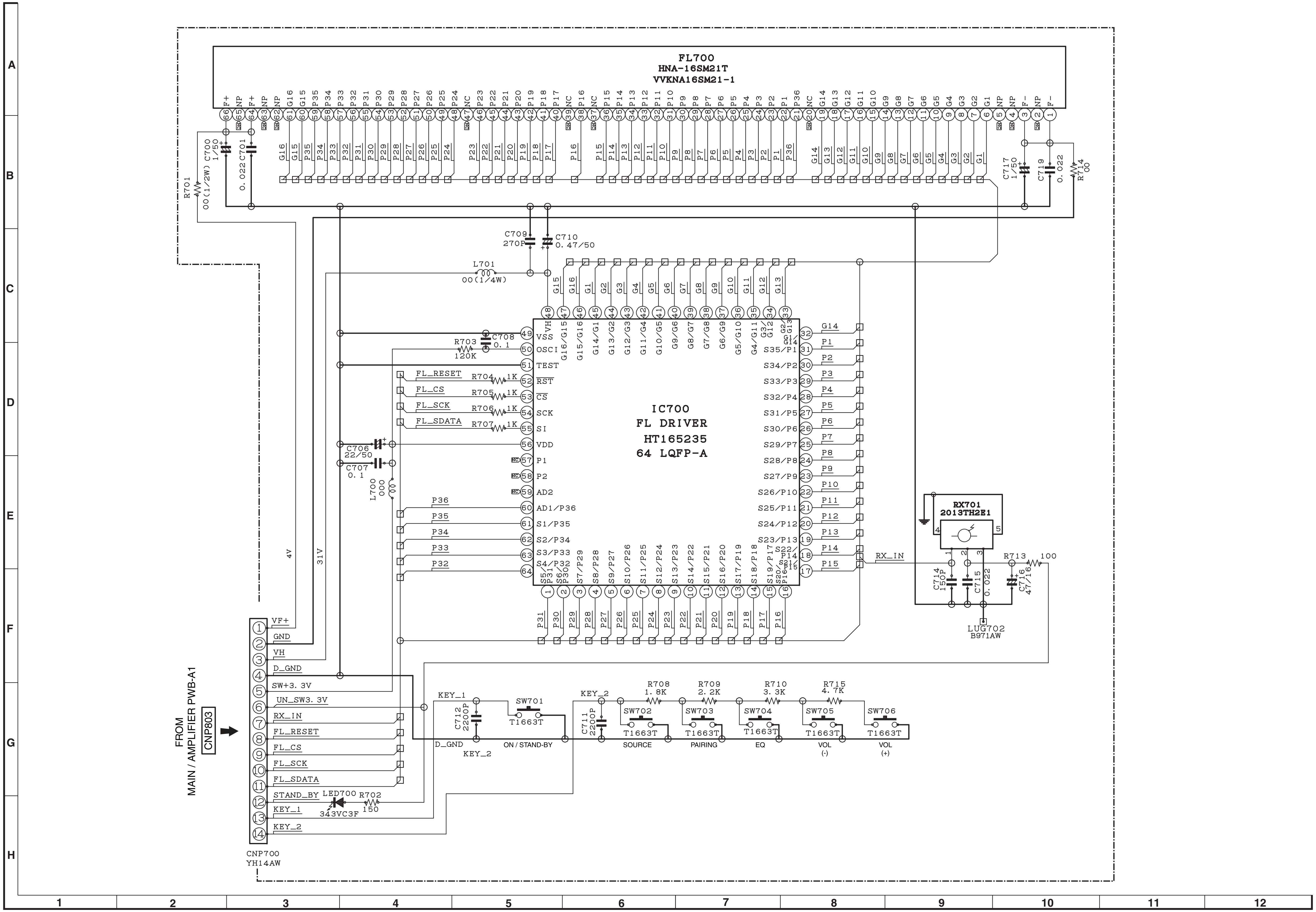


Figure 8-4: DISPLAY SCHEMATIC DIAGRAM

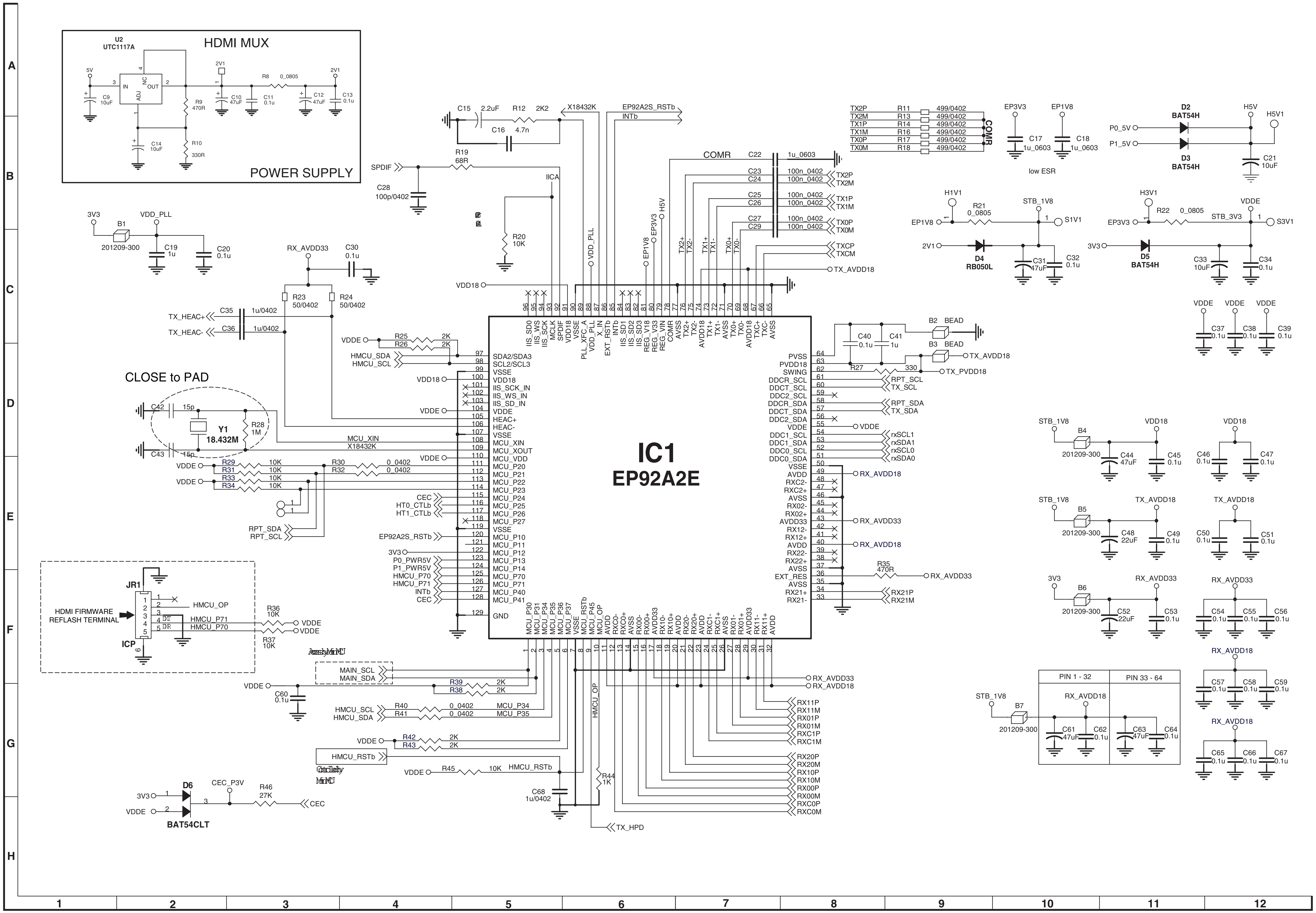


Figure 8-5: HDMI SCHEMATIC DIAGRAM

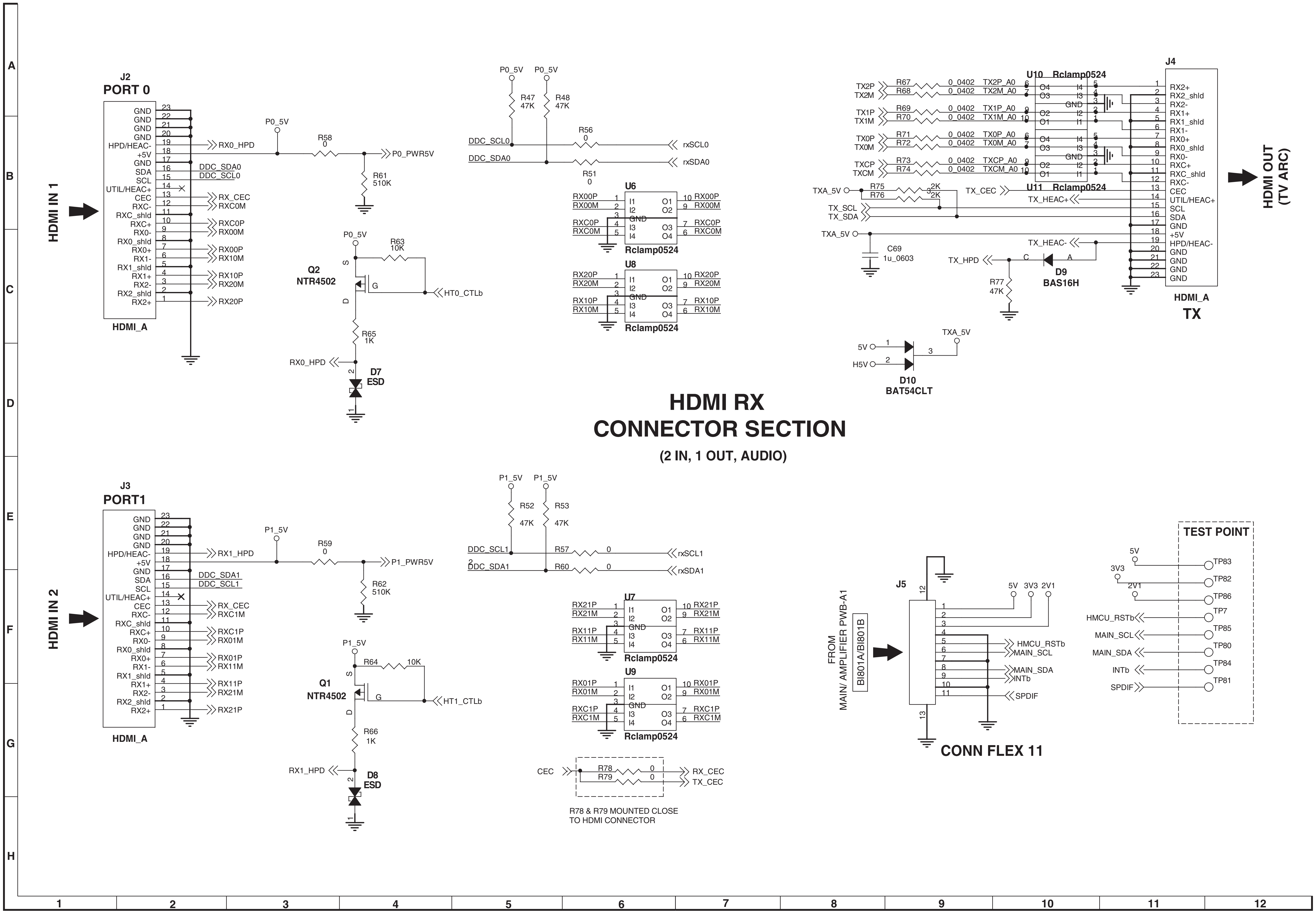



Figure 8-6: HDMI (RX CONNECTOR SECTION) SCHEMATIC DIAGRAM

## [4] Chart Of Connecting Wires

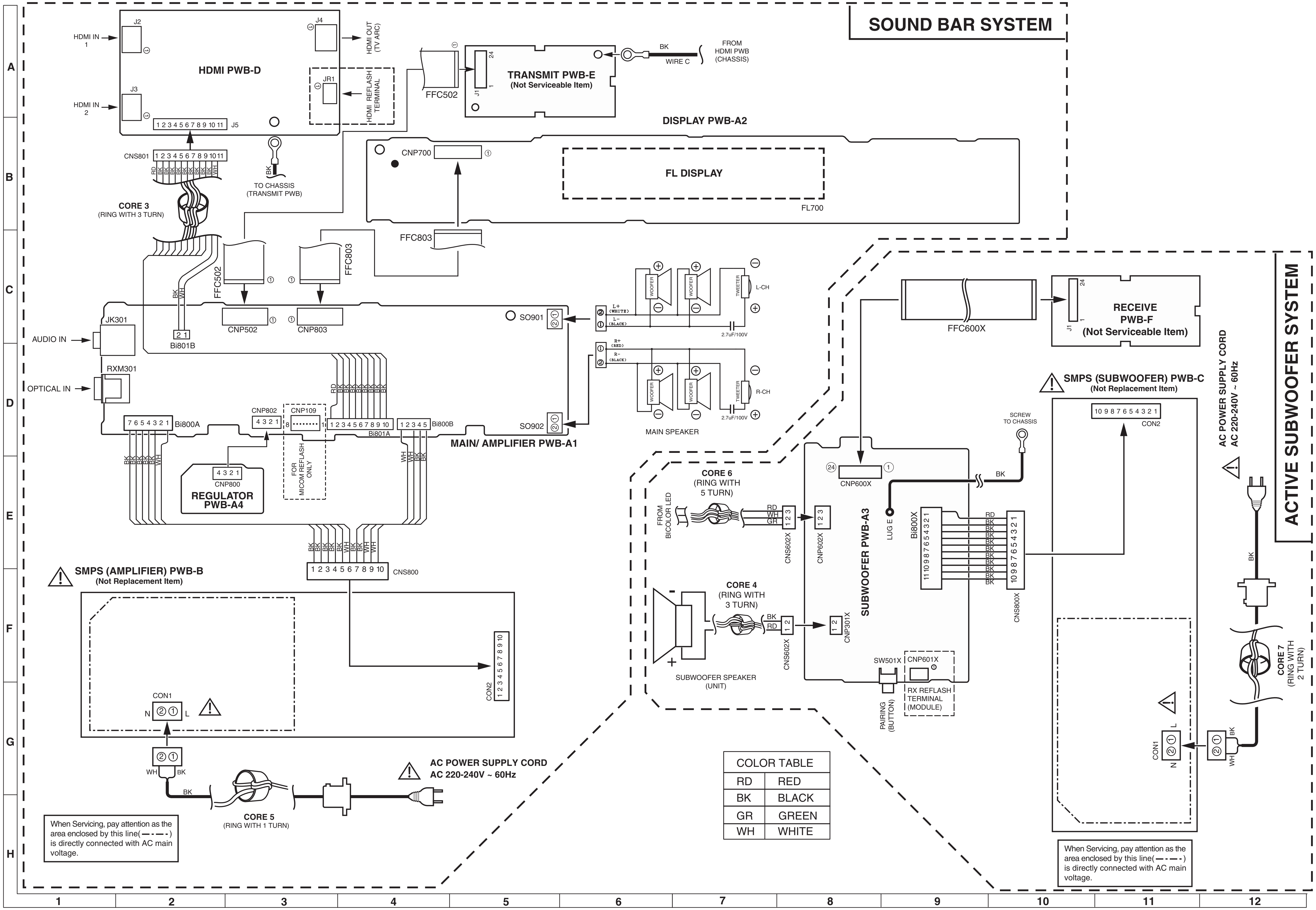
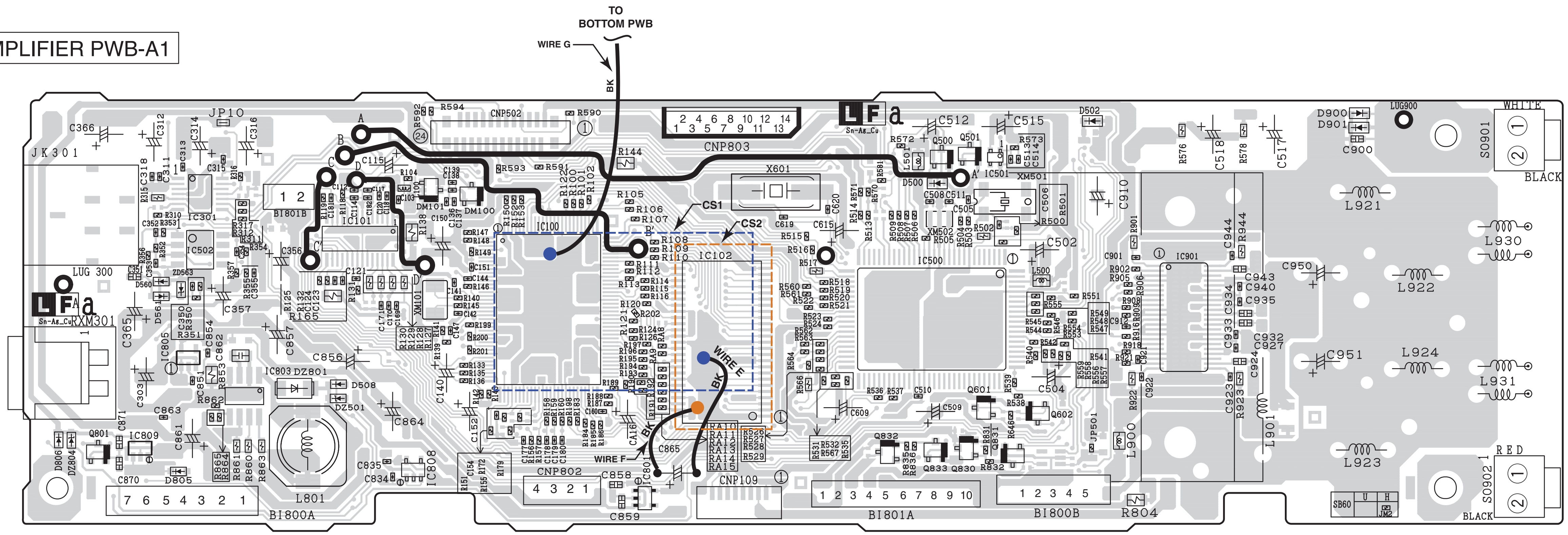



Figure 8-7: WIRING CONNECTION

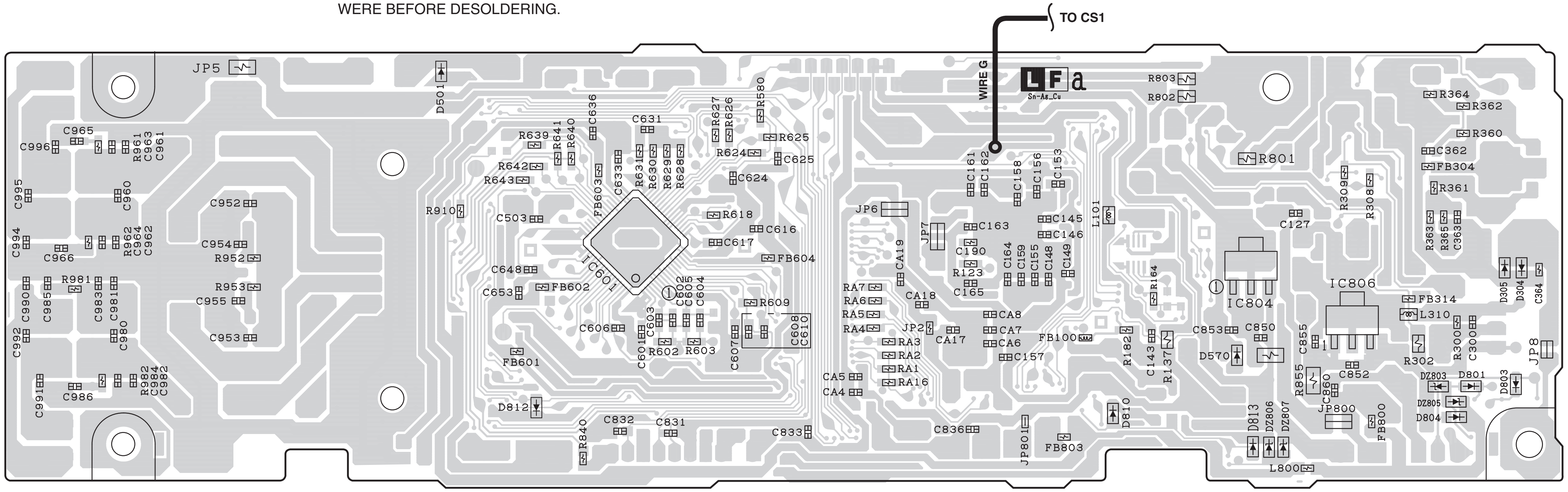
## [5] Wiring Side Of PWB

MAIN/ AMPLIFIER PWB-A1




**IMPORTANT NOTE**
AFTER SERVICING MAIN PWB, PLEASE ENSURE THE COPPER SHEETS (**CS1** & **CS2**) MUST REARRANGED TO WHERE THEY WERE BEFORE DESOLDERING.

Top View



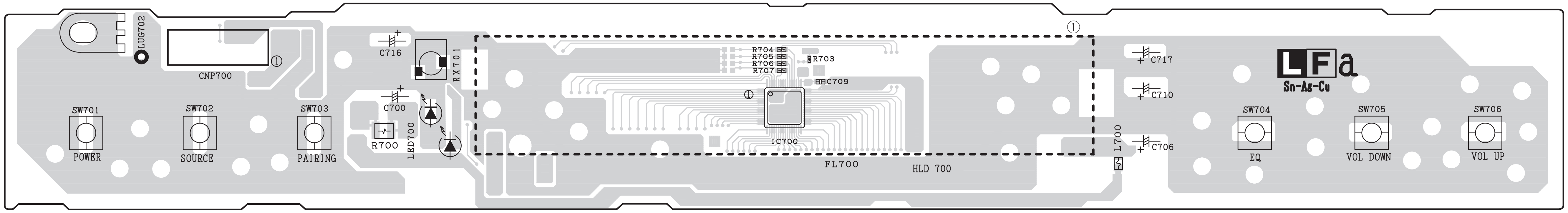

Bottom View

Lead-free solder indication

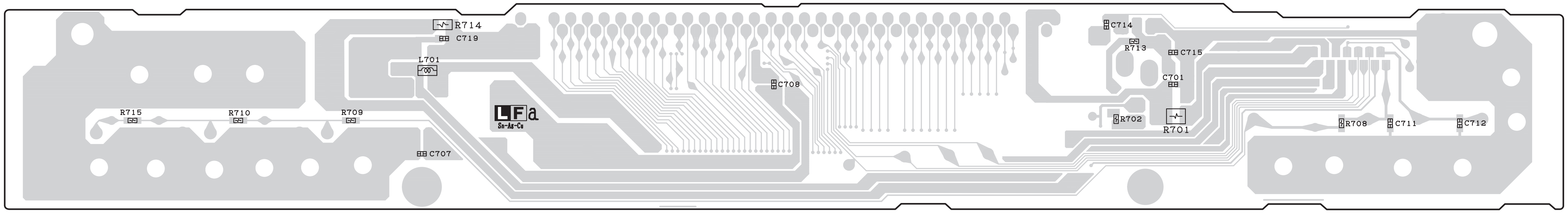
Lead-free solder is used in the MAIN/AMPLIFIER PWB.
Refer to "Precautions for handling lead-free solder" for instructions and precautions.

Figure 8-8: WIRING SIDE OF MAIN / AMPLIFIER PWB

DISPLAY PWB-A2



Top View



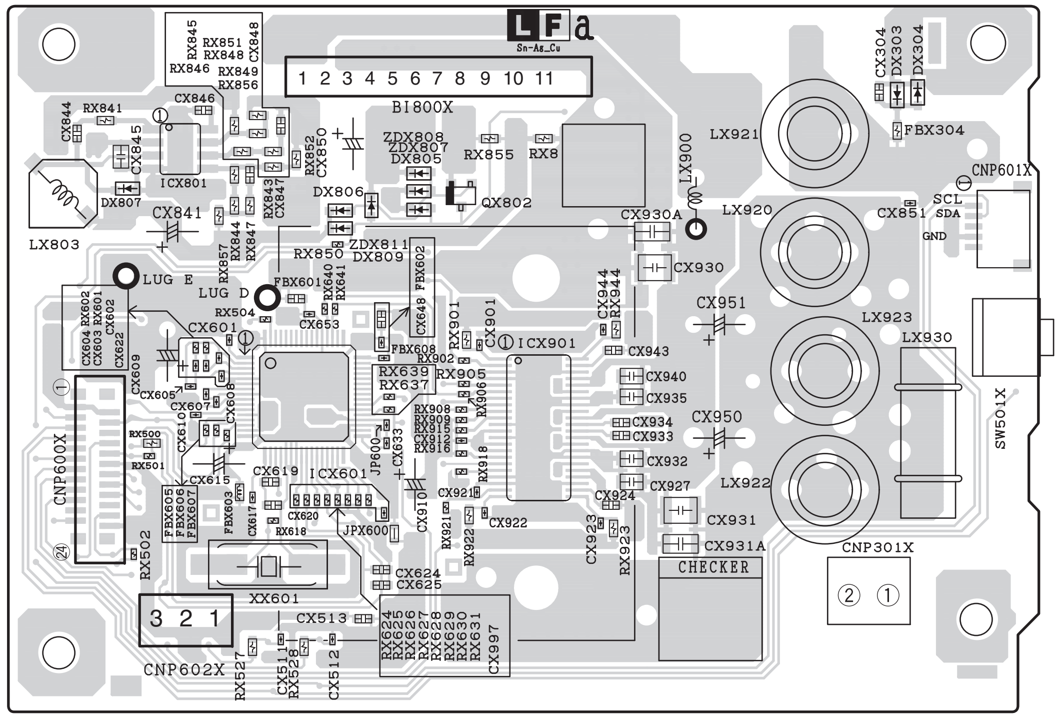
Bottom View

Lead-free solder indication

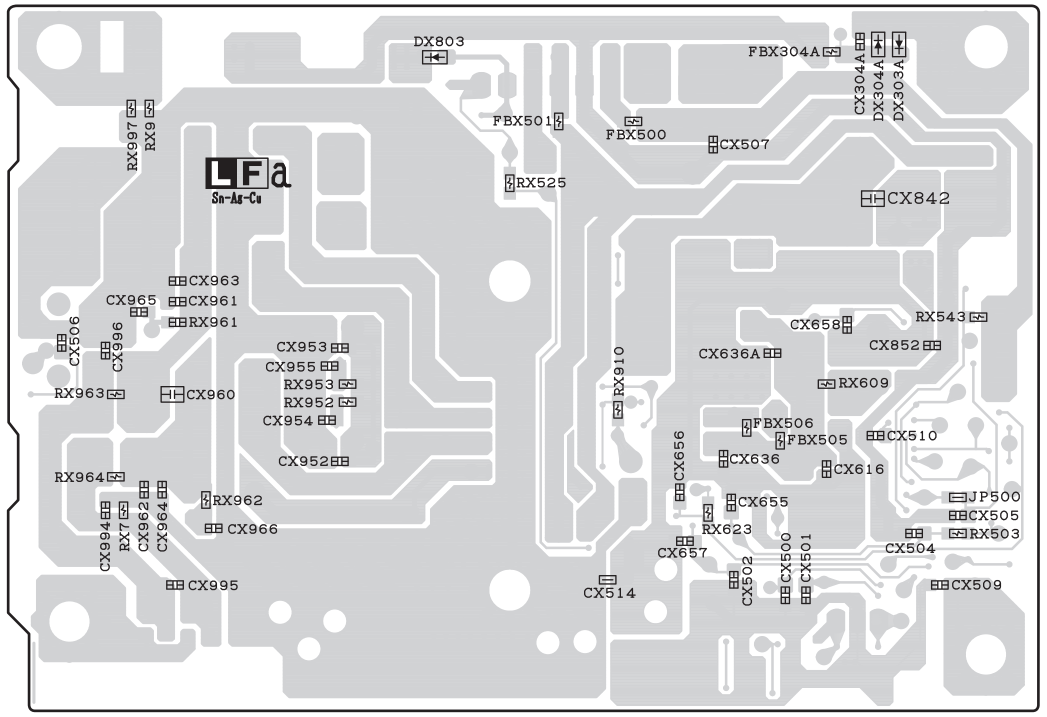
Lead-free solder is used in the DISPLAY PWB.
Refer to "Precautions for handling lead-free solder" for instructions and precautions.

**Figure 8-9: WIRING SIDE OF DISPLAY PWB**

SUBWOOFER PWB-A3

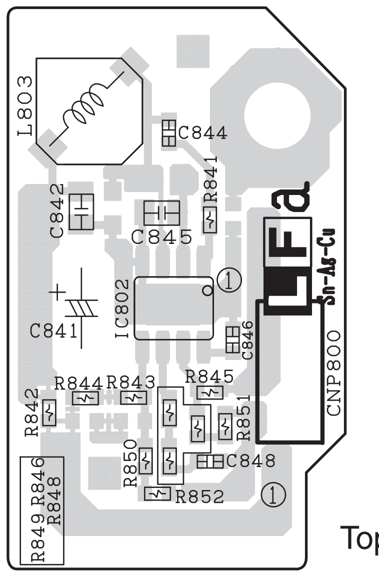



Top View

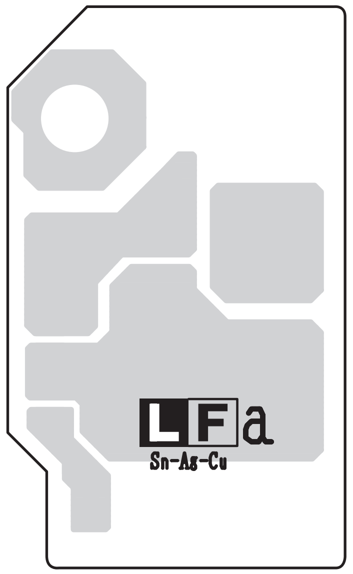


Bottom View

REGULATOR PWB-A4




Top View



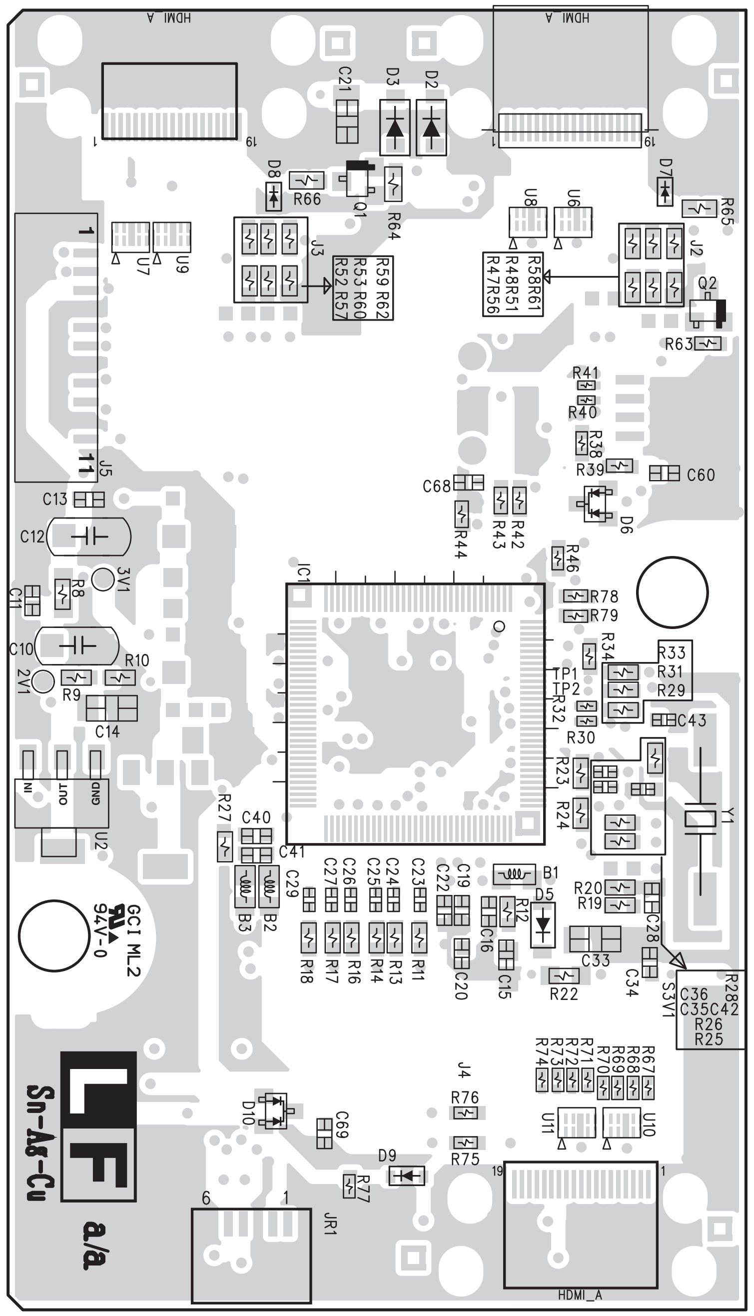
Bottom View

Lead-free solder indication

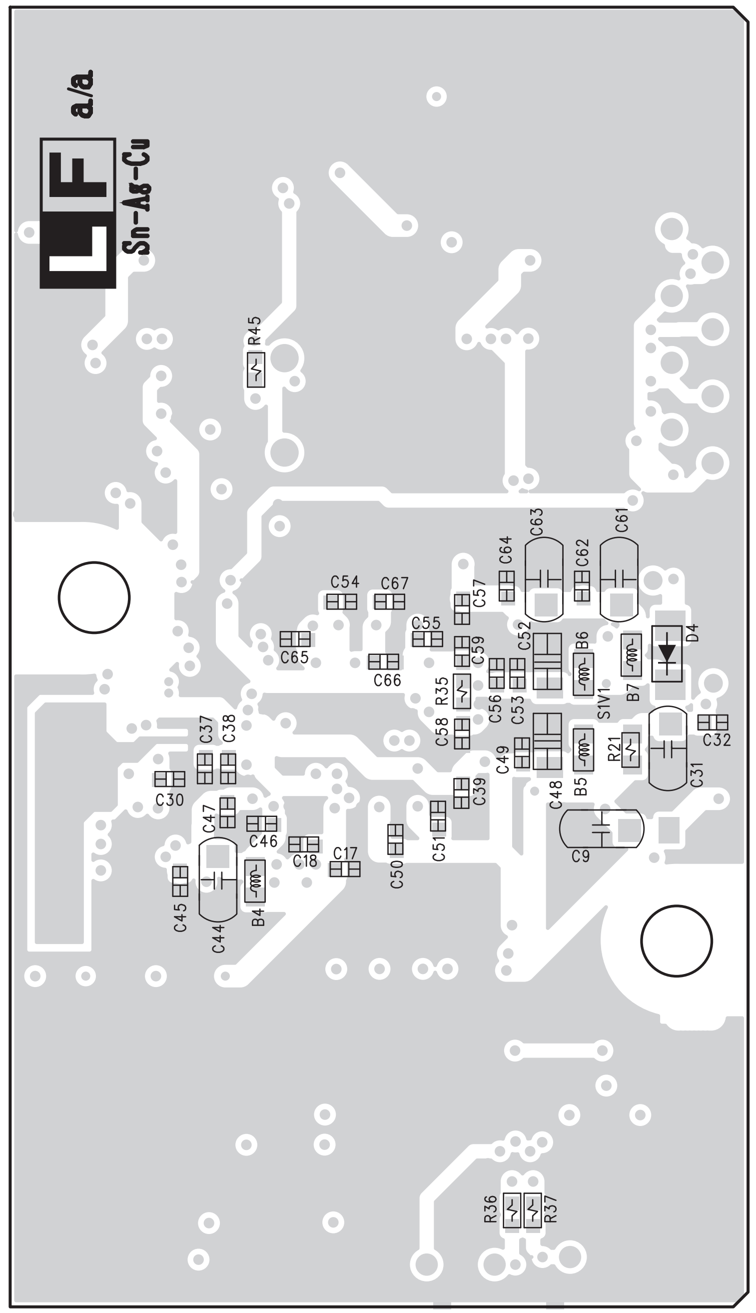
Lead-free solder is used in the SUBWOOFER & REGULATOR PWB.
Refer to "Precautions for handling lead-free solder" for instructions and precautions.

**Figure 8-10: WIRING SIDE OF SUBWOOFER & REGULATOR PWB**

HDMI PWB-D



Top View



Bottom View

Lead-free solder indication

Lead-free solder is used in the HDMI PWB.
Refer to "Precautions for handling lead-free solder" for instructions and precautions.

**Figure 8-11: WIRING SIDE OF HDMI PWB**

**-MEMO-**

**-MEMO-**

# SHARP PARTS GUIDE

## SOUND BAR HOME THEATER SYSTEM

## MODEL HT-SB60

**[For Europe, U.K.]**

**HT-SB60 Sound Bar Home Theater system consisting of HT-SB60 (sound bar system) and CP-SW60 (active subwoofer system).**

## CONTENTS



## Explanation of capacitors/resistors parts codes

**Capacitors**

VCC ....................... Ceramic type
VCK ....................... Ceramic type
VCT ....................... Semiconductor type
VC • • MF ............... Cylindrical type (without lead wire)
VC • • MN ............... Cylindrical type (without lead wire)
VC • • TV ................ Square type (without lead wire)
VC • • TQ ............... Square type (without lead wire)
VC • • CY ............... Square type (without lead wire)
VC • • CZ ............... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%, "C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

**Resistors**

VRD ....................... Carbon-film type
VRS ....................... Carbon-film type
VRN ....................... Metal-film type
VR • • MF ............... Cylindrical type (without lead wire)
VR • • MN ............... Cylindrical type (without lead wire)
VR • • TV ................ Square type (without lead wire)
VR • • TQ ............... Square type (without lead wire)
VR • • CY ............... Square type (without lead wire)
VR • • CZ ............... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

## Explanation of PWB Assembly parts code category

S Category -- Repair ( Component parts of PWB can be replace and repair, PWB no supply )
X Category -- Replacement ( PWB can not be repair. Component parts no supply )
S.X Category -- Repair and Replacement ( PWB can repair and replace )
KG Category -- Revolve repair by Business Center ( Return to Business Center and repair by manufacturer. Component parts no supply )

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|

## [1] INTEGRATED CIRCUITS

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| iC1 | VHiEP92A2E+-1 | BA | | | HDMI IC |
| iC100 | VHiCS495314-1 | BB | | | Display IC |
| iC101 | VHiCS8416CN-1 | AR | | | DIR, CS8416CN |
| iC102 | RH-iXA365AWZZ | AL | | | SDRAM 16MB IC |
| iC301 | VHiPCM1808P-1 | AH | | | Single Ended Analog |
| iC500 | RH-iXA348AW00 | AV | | | System Microcomputer, iXA348AW |
| iC501 | VHiPST8227U-1 | AC | | | Reset IC, 2.7V |
| iC502 | VHiNJM12904-1 | AE | | | Operational Amplifier |
| iC601 | VHiTAS5504A-1 | AR | | | Digital Audio PWM |
| iC700 | VHiHT165235-1 | AM | | | FL Driver |
| iC801 | VHi3464A33N-1 | AC | | | Voltage Regulator, 3.3V |
| iC802 | VHiMP2301E+-1 | AG | | | DC-DC Converter, MP2301E |
| iC803 | VHiMC33063A-1 | AE | | | DC-DC Converter, 18V |
| iC804 | VHiUTC1117Y33 | AD | | | Voltage Regulator, 3.3V |
| iC805 | VHi3464A18N-1 | AC | | | Voltage Regulator |
| iC806 | VHiUTC1117Y33 | AD | | | Voltage Regulator, 3.3V |
| iC808 | VHi3464A40N-1 | AC | | | Voltage Regulator, 4V |
| iC809 | VHi3464A40N-1 | AC | | | Voltage Regulator, 4V |
| iC901 | VHiTAS5342L-1 | AR | | | Digital Amplifier |
| iCX601 | VHiTAS5504A-1 | AR | | | Digital Audio PWM |
| iCX801 | VHiMP2301E+-1 | AG | | | DC-DC Converter, MP2301E |
| iCX901 | VHiTAS5342L-1 | AR | | | Digital Amplifier |
| U2 | VHiUTC1117YA1 | AD | | | Voltage Regulator, 7V |

## [2] TRANSISTORS

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| Q1 | VSKMB3DP30S-1 | AD | | | Switching Transistor |
| Q2 | VSKMB3DP30S-1 | AD | | | Switching Transistor |
| Q500 | VSKRC104S//-1 | AC | | | Digital, PNP, KRC104S |
| Q501 | VSKRC104S//-1 | AC | | | Digital, PNP, KRC104S |
| Q601 | VSKRC102S//-1 | AB | | | Digital, PNP, KRC102S |
| Q602 | VSKRC102S//-1 | AB | | | Digital, PNP, KRC102S |
| Q801 | VSKRC104S//-1 | AC | | | Digital, PNP, KRC104S |
| Q830 | VSKTA1544T/-1 | AD | | | Silicon, PNP, KTA1544 T |
| Q831 | VSKRC102S//-1 | AB | | | Digital, PNP, KRC102S |
| Q832 | VSKTA1544T/-1 | AB | | | Silicon, PNP, KTA1544 T |
| Q833 | VSKRC102S//-1 | AB | | | Digital, PNP, KRC102S |
| QX802 | VSKRC104S//-1 | AB | | | Digital, PNP, KRC104S |

## [3] DIODES

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| D2 | VHDBAT54H++-1 | AB | | | Schotty Barrier |
| D3 | VHDBAT54H++-1 | AB | | | Schotty Barrier |
| D4 | VHDRB056L40-1 | AC | | | Schotty Barrier |
| D5 | VHDBAT54H++-1 | AB | | | Schotty Barrier |
| D6 | VHDSBAT54C/-1 | AB | | | Schotty Barrier |
| D7 | RH-VXA005AFZZ | AC | | | Array Diode |
| D8 | RH-VXA005AFZZ | AC | | | Array Diode |
| D9 | VHDBAS16H++-1 | AB | | | Switching Diode |
| D10 | VHDSBAT54C/-1 | AB | | | Schotty Barrier |
| D304 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D305 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D500 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D501 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D502 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D508 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D560 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D561 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D570 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D801 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D803 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D804 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D805 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D806 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D810 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D812 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D813 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D900 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| D901 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DM100 | VHDKDS226//-1 | AB | | | Silicon, KDS226 |
| DM101 | VHDKDS226//-1 | AB | | | Silicon, KDS226 |
| DX303A | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DX304A | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DX803 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DX805 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DX806 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DX809 | VHDDA1010++-1 | AB | | | Silicon, DA1010 |
| DZ501 | RH-EXA738WJQZ | AB | | | Zener |
| DZ801 | VHDSS14A+++-1 | AC | | | Silicon, SS14A |
| DZ803 | RH-EXA701WJQZ | AB | | | Zener, 6.8V |
| DZ804 | RH-EXA694WJQZ | AB | | | Silicon,SS14A |
| DZ805 | RH-EXA716WJQZ | AB | | | Zener |
| DZ806 | RH-EXA694WJQZ | AB | | | Silicon,SS14A |
| DZ807 | RH-EXA701WJQZ | AB | | | Zener, 6.8V |
| LED700 | VHPSLR343VC3F | AC | | | LED, Red |
| U6 | RH-VXA003AWZZ | AE | | | Array |
| U7 | RH-VXA003AWZZ | AE | | | Array |
| U8 | RH-VXA003AWZZ | AE | | | Array |
| U9 | RH-VXA003AWZZ | AE | | | Array |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[3] DIODES** | | | | | |
| U10 | RH-VXA003AWZZ | AE | | | Array |
| U11 | RH-VXA003AWZZ | AE | | | Array |
| ZD563 | RH-EXA686WJQZ | AB | | | Zener, 3.3V |
| ZDX807 | RH-EXA716WJQZ | AB | | | Zener |
| ZDX808 | RH-EXA701WJQZ | AB | | | Zener, 6.8V |
| ZDX811 | RH-EXA694WJQZ | AB | | | Silicon,SS14A |
| **[4] COILS** | | | | | |
| B1 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| B2 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| B3 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| B4 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| B5 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| B6 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| B7 | RBLN-A009AWZZ | AA | | | Ferrite Bead, 300ohms |
| CORE1 | RCORFA015AWZZ | AD | | | Ferrite Core, Ring |
| CORE2 | RCORFA015AWZZ | AD | | | Ferrite Core, Ring |
| CORE3 | RCORFA015AWZZ | AD | | | Ferrite Core, Ring |
| CORE4 | RCORFA015AWZZ | AD | | | Ferrite Core, Ring |
| CORE5 | RCORFA025AWZZ | AF | | | Ferrite Core, Ring |
| CORE6 | RCORFA027AWZZ | AD | | | Ferrite Core, Ring |
| CORE7 | RCORFA033AWZZ | AG | | | Ferrite Core, Ring |
| FB304 | RBLN-A010AWZZ | AA | | | Ferrite Bead, 1 kohms |
| FB601 | RFiLN5044NCPZ | AB | | | Ferrite Bead |
| FB602 | RBLN-A012AWZZ | AB | | | Ferrite Bead |
| FB603 | RBLN-A012AWZZ | AB | | | Ferrite Bead |
| FB604 | RBLN-A012AWZZ | AB | | | Ferrite Bead |
| FB800 | RBLN-A367WJQZ | AB | | | Chip Ferrite Bead |
| FB803 | RBLN-A367WJQZ | AB | | | Chip Ferrite Bead |
| FBX500 | RFiLN5044NCPZ | AB | | | Ferrite Bead |
| FBX501 | RFiLN5044NCPZ | AB | | | Ferrite Bead |
| FBX505 | RBLN-A012AWZZ | AB | | | Ferrite Bead |
| FBX506 | RBLN-A012AWZZ | AB | | | Ferrite Bead |
| FBX601 | RFiLN5044NCPZ | AB | | | Ferrite Bead |
| FBX602 | RFiLN5044NCPZ | AB | | | Ferrite Bead |
| FBX603 | RBLN-0051TAZZ | AA | | | Chip Ferrite Bead |
| FBX605 | RBLN-0258TAZZ | AA | | | Coil |
| FBX606 | RBLN-0258TAZZ | AA | | | Coil |
| FBX607 | RBLN-0258TAZZ | AA | | | Coil |
| FBX608 | RFiLNA023AFZZ | AB | | | Ferrite Bead |
| JP801 | RBLN-0077TAZZ | AB | | | Balun |
| L100 | RBLN-0061TAZZ | AB | | | Balun |
| L101 | VPBNN2R2K0000 | AC | | | Peaking Coill, 2.2 µH |
| L310 | VPBNN2R2K0000 | AC | | | Peaking Coill, 2.2 µH |
| L500 | VPBNN100K0000 | AC | | | Peaking Coill, 10 µH |
| L501 | VPBNN4R7K0000 | AC | | | Peaking Coill, 4.7 µH |
| L800 | RBLN-A367WJQZ | AB | | | Chip Ferrite Bead |
| L801 | RCiLZA100AWZZ | AF | | | Coil, 150 µH |
| L803 | RCiLZA098AWZZ | AE | | | Coil, 10 µH |
| L901 | RCORF0015AWZZ | AB | | | Coil, 10 µH |
| L921 | RCiLZA089AWZZ | AF | | | Coil, 10µH |
| L922 | RCiLZA089AWZZ | AF | | | Coil, 10µH |
| L923 | RCiLZA089AWZZ | AF | | | Coil, 10µH |
| L924 | RCiLZA089AWZZ | AF | | | Coil, 10µH |
| L930 | RCiLZ0055AWZZ | AH | | | Coil |
| L931 | RCiLZ0055AWZZ | AH | | | Coil |
| LX803 | RCiLZA098AWZZ | AE | | | Coil, 10 µH |
| LX900 | RCORF0015AWZZ | AB | | | Coil, 10 µH |
| LX920 | RCiLZA083AWZZ | AF | | | Coil, 15µH |
| LX921 | RCiLZA083AWZZ | AF | | | Coil, 15µH |
| LX922 | RCiLZA083AWZZ | AF | | | Coil, 15µH |
| LX923 | RCiLZA083AWZZ | AF | | | Coil, 15µH |
| LX930 | RCiLZ0055AWZZ | AH | | | Coil |
| R121 | RBLN-A268WJZZ | AB | | | Balun |
| R126 | RBLN-A268WJZZ | AB | | | Balun |
| R128 | RBLN-0077TAZZ | AB | | | Balun |
| R131 | RFiLNA023AFZZ | AB | | | Ferrite Bead |
| R146 | RFiLNA023AFZZ | AB | | | Ferrite Bead |
| R183 | RBLN-A268WJZZ | AB | | | Balun |
| R184 | RBLN-A268WJZZ | AB | | | Balun |
| R185 | RBLN-A268WJZZ | AB | | | Balun |
| R186 | RBLN-A268WJZZ | AB | | | Balun |
| R187 | RBLN-A268WJZZ | AB | | | Balun |
| R188 | RBLN-A268WJZZ | AB | | | Balun |
| R189 | RBLN-A268WJZZ | AB | | | Balun |
| R190 | RBLN-A268WJZZ | AB | | | Balun |
| R191 | RBLN-A268WJZZ | AB | | | Balun |
| R192 | RBLN-A268WJZZ | AB | | | Balun |
| R193 | RBLN-A268WJZZ | AB | | | Balun |
| R194 | RBLN-A268WJZZ | AB | | | Balun |
| R195 | RBLN-A268WJZZ | AB | | | Balun |
| R196 | RBLN-A268WJZZ | AB | | | Balun |
| R197 | RBLN-A268WJZZ | AB | | | Balun |
| R315 | RBLN-A010AWZZ | AA | | | Ferrite Bead, 1 kohms |
| R513 | RBLN-0110TAZZ | AA | | | Ferrite Bead |
| R514 | RBLN-0110TAZZ | AA | | | Ferrite Bead |
| R592 | RCiLZA152AFZZ | AB | | | Coil |
| R624 | RBLN-0006TAZZ | AA | | | Balun |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[4] COILS** | | | | | |
| R625 | RBLN-0006TAZZ | AA | | | Balun |
| R626 | RBLN-0006TAZZ | AA | | | Balun |
| R627 | RBLN-0006TAZZ | AA | | | Balun |
| R631 | RBLN-0006TAZZ | AA | | | Balun |
| R840 | RBLN-A013AWZZ | AC | | | Ferrite Bead |
| R842 | RBLN-A367WJQZ | AB | | | Chip Ferrite Bead |
| RX624 | RBLN-0258TAZZ | AA | | | Coil |
| RX625 | RBLN-0258TAZZ | AA | | | Coil |
| RX626 | RBLN-0258TAZZ | AA | | | Coil |
| RX627 | RBLN-0258TAZZ | AA | | | Coil |
| RX631 | RBLN-0258TAZZ | AA | | | Coil |
| **[5] CRYSTALS / VIBRATORS** | | | | | |
| X601 | RCRSPA030AWZZ | AD | | | Crystal, 13.50 MHz |
| XM101 | RCRSCA145WJZZ | AF | | | Crystal, 12.2880 MHz |
| XM501 | RCRSC0032TAZZ | AE | | | Crystal, 32.768 KHz |
| XM502 | RFiLZA007WJZZ | AE | | | Resonator, 12MHz |
| XX601 | RCRSPA030AWZZ | AD | | | Crystal, 13.50 MHz |
| Y1 | RCRSPA031AWZZ | AE | | | Crystal, 18.432 MHz |
| **[6] CAPACITORS** | | | | | |
| C9 | RC-KZA110WJZZ | AD | | | 10 µF, 25V |
| C10 | RC-KZ3035AWZZ | AE | | | 47 µF, 10V, Electrolytic |
| C11 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C12 | RC-KZ3035AWZZ | AE | | | 47 µF, 10V, Electrolytic |
| C13 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C14 | RC-KZA110WJZZ | AD | | | 10 µF, 25V |
| C15 | RC-KZA211WJZZ | AB | | | 2.2 µF, 25V |
| C16 | VCKYCY1HB472K | AA | | | 4700 pF, 50V |
| C17 | RC-KZA114WJZZ | AB | | | 1 µF, 25V |
| C18 | RC-KZA114WJZZ | AB | | | 1 µF, 25V |
| C19 | RC-KZA114WJZZ | AB | | | 1 µF, 25V |
| C20 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C21 | RC-KZA110WJZZ | AD | | | 10 µF, 25V |
| C22 | RC-KZA114WJZZ | AB | | | 1 µF, 25V |
| C23 | VCKYCZ1CB104K | AA | | | 0.1 µF, 16V |
| C24 | VCKYCZ1CB104K | AA | | | 0.1 µF, 16V |
| C25 | VCKYCZ1CB104K | AA | | | 0.1 µF, 16V |
| C26 | VCKYCZ1CB104K | AA | | | 0.1 µF, 16V |
| C27 | VCKYCZ1CB104K | AA | | | 0.1 µF, 16V |
| C28 | VCCCCZ1HH101J | AB | | | 100 pF (CH), 50V |
| C29 | VCKYCZ1CB104K | AA | | | 0.1 µF, 16V |
| C30 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C31 | RC-KZ3035AWZZ | AE | | | 47 µF, 10V, Electrolytic |
| C32 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C33 | RC-KZA110WJZZ | AD | | | 10 µF, 25V |
| C34 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C35 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C36 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C37 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C38 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C39 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C40 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C41 | VCKYCY1EB105K | AB | | | 1 µF, 25V |
| C42 | VCCCCY1HH150J | AA | | | 15 pF (CH), 50V |
| C43 | VCCCCY1HH150J | AA | | | 15 pF (CH), 50V |
| C44 | RC-KZ3035AWZZ | AE | | | 47 µF, 10V, Electrolytic |
| C45 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C46 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C47 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C48 | RC-KZ3028AWZZ | AE | | | 22 µF, 16V, Electrolytic |
| C49 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C50 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C51 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C52 | RC-KZ3028AWZZ | AE | | | 22 µF, 16V, Electrolytic |
| C53 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C54 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C55 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C56 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C57 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C58 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C59 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C60 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C61 | RC-KZ3035AWZZ | AE | | | 47 µF, 10V, Electrolytic |
| C62 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C63 | RC-KZ3035AWZZ | AE | | | 47 µF, 10V, Electrolytic |
| C64 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C65 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C66 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C67 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C68 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C69 | RC-KZA114WJZZ | AB | | | 1 µF, 25V |
| C103 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| C112 | VCKYCZ1CB223K | AB | | | 0.022 µF, 16V |
| C114 | VCKYCZ1HB102K | AB | | | 1000 pF, 50V |
| C115 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| C117 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C118 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[6] CAPACITORS** | | | | | |
| C120 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| C121 | VCCCCZ1HH560J | AB | | | 56 pF (CH), 50V |
| C123 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C124 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C127 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C136 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C137 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C138 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C139 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C140 | VCEAEA1CW106M | AB | | | 10 µF, 16V, Electrolytic |
| C141 | VCCCCZ1HH180J | AA | | | 18 pF (CH), 50V |
| C142 | VCCCCZ1HH220J | AA | | | 22 pF (CH), 50V |
| C143 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C144 | VCCCCZ1HH470J | AB | | | 47 pF (CH), 50V |
| C145 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C146 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C147 | VCCCCZ1HH101J | AB | | | 100 pF (CH), 50V |
| C148 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C149 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C150 | VCEAZA1HW226M | AB | | | 22 µF, 50V, Electrolytic |
| C151 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C152 | VCEAZA1CW476M | AB | | | 47 µF, 16V, Electrolytic |
| C153 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C154 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C155 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C156 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C157 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C158 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C159 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C160 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C161 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C162 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C163 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C164 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C165 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C169 | VCCCCZ1HH820J | AB | | | 82 pF (CH), 50V |
| C170 | VCCCCZ1HH820J | AB | | | 82 pF (CH), 50V |
| C171 | VCCCCZ1HH820J | AB | | | 82 pF (CH), 50V |
| C177 | VCCCCZ1HH101J | AB | | | 100 pF (CH), 50V |
| C178 | VCCCCZ1HH101J | AB | | | 100 pF (CH), 50V |
| C179 | VCCCCZ1HH330J | AB | | | 33 pF (CH), 50V |
| C180 | VCCCCZ1HH101J | AB | | | 100 pF (CH), 50V |
| C181 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| C182 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C190 | VCCCCY1HH150J | AA | | | 15 pF (CH), 50V |
| C300 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C303 | VCEAZA1HW475M | AB | | | 4.7 µF, 50V, Electrolytic |
| C311 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C312 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| C313 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C314 | VCEAZA1CW336M | AB | | | 33 µF, 16V, Electrolytic |
| C315 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C316 | VCEAZA1CW107M | AC | | | 100 µF, 16V, Electrolytic |
| C318 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C350 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C351 | VCKYCY1HB473K | AB | | | 0.047 µF, 50V |
| C352 | VCCCCZ1HH100D | AA | | | 10 pF(CH), 50V |
| C353 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C354 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C355 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C356 | VCEAZA1CW476M | AB | | | 47 µF, 16V, Electrolytic |
| C357 | VCEAZA1CW476M | AB | | | 47 µF, 16V, Electrolytic |
| C362 | VCKYCY1HB331K | AA | | | 330 pF, 50V |
| C363 | VCKYCY1HB331K | AA | | | 330 pF, 50V |
| C364 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C365 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| C366 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| C502 | RC-EZD106AF1C | AB | | | 10 µF, 16V, Electrolytic |
| C503 | VCKYCY1CF105Z | AB | | | 1 µF, 16V |
| C504 | RC-EZD106AF1C | AB | | | 10 µF, 16V, Electrolytic |
| C505 | VCCCCZ1HH100D | AA | | | 10 pF(CH), 50V |
| C506 | VCCCCZ1HH120J | AA | | | 12 pF(CH), 50V |
| C508 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C509 | VCEAZA1AW477M | AC | | | 470 µF, 10V, Electrolytic |
| C510 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C511 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| C512 | VCEAZA1HW475M | AB | | | 4.7 µF, 50V, Electrolytic |
| C513 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| C514 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C515 | VCEAEA1CW106M | AB | | | 10 µF, 16V, Electrolytic |
| C517 | VCEAZA1AW337M | AC | | | 330 µF, 10V, Electrolytic |
| C518 | VCEAZA1AW337M | AC | | | 330 µF, 10V, Electrolytic |
| C601 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C602 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C603 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C604 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C605 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C606 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| C607 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[6] CAPACITORS** | | | | | |
| C608 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C609 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| C610 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| C615 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| C616 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C617 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C619 | VCCCCZ1HH300J | AB | | | 30 pF (CH), 50V |
| C620 | VCCCCZ1HH300J | AB | | | 30 pF (CH), 50V |
| C624 | VCCCCY1HH390J | AA | | | 39 pF (CH), 50V |
| C625 | VCCCCY1HH390J | AA | | | 39 pF (CH), 50V |
| C631 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| C633 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C636 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C648 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C653 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C700 | RC-EZY105AF1H | AB | | | 1 µF, 50V |
| C701 | VCKYCY1HB223K | AA | | | 0.022 µF, 50V |
| C706 | RC-EZY226AF1H | AB | | | 22 µF, 50V, Electrolytic |
| C707 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C708 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C709 | VCKYCY1HB271K | AA | | | 270 pF (CH), 50V |
| C710 | RC-EZY474AF1H | AB | | | 0.47 µF, 50V |
| C711 | VCCCCY1HH222J | AB | | | 2200 pF, 50V |
| C712 | VCCCCY1HH222J | AB | | | 2200 pF, 50V |
| C714 | VCCCCY1HH151J | AA | | | 150 pF (CH), 50V |
| C715 | VCKYCY1HB223K | AA | | | 0.022 µF, 50V |
| C716 | RC-EZD476AF1C | AC | | | 47 µF, 16V, Electrolytic |
| C717 | RC-EZY105AF1H | AB | | | 1 µF, 50V |
| C719 | VCKYCY1HB223K | AA | | | 0.022 µF, 50V |
| C831 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| C832 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| C833 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C834 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C835 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C836 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C841 | VCEAZA1CW477M | AC | | | 470 µF, 16V, Electrolytic |
| C842 | VCKYTV1EB106K | AC | | | 10 µF, 50V |
| C844 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C845 | VCKYTV1EB106K | AC | | | 10 µF, 50V |
| C846 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C848 | VCKYCY1HB821K | AA | | | 820 pF (CH), 50V |
| C850 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C851 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C852 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C853 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C854 | VCKYCZ1AB105K | AA | | | 1 µF, 10V |
| C855 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C856 | VCEAZA1CW226M | AC | | | 22 µF, 16V, Electrolytic |
| C857 | VCEAZA1HW226M | AB | | | 22 µF, 50V, Electrolytic |
| C858 | VCKYCY1CF105Z | AB | | | 1 µF, 16V |
| C859 | VCKYCY1CF105Z | AB | | | 1 µF, 16V |
| C860 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C861 | VCEAZA1EW107M | AB | | | 100 µF, 25V, Electrolytic |
| C862 | VCKYTV1HB331K | AA | | | 330 pF (CH), 50V |
| C863 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C864 | VCEAZA1HW477M | AC | | | 470 µF, 50V, Electrolytic |
| C870 | VCKYCY1CF105Z | AB | | | 1 µF, 16V |
| C871 | VCKYCY1CF105Z | AB | | | 1 µF, 16V |
| C900 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C901 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C910 | RC-EZD226AF1C | AB | | | 22 µF, 16V, Electrolytic |
| C912 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C921 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C922 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C923 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C924 | VCKYCY1CF334Z | AA | | | 0.33 µF, 16V |
| C927 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C932 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C933 | VCKYCY1CF334Z | AA | | | 0.33 µF, 16V |
| C934 | VCKYCY1CF334Z | AA | | | 0.33 µF, 16V |
| C935 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C940 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C943 | VCKYCY1CF334Z | AA | | | 0.33 µF, 16V |
| C944 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| C950 | VCEAZA1JW227M | AD | | | 220 µF, 63V, Electrolytic |
| C951 | VCEAZA1JW227M | AD | | | 220 µF, 63V, Electrolytic |
| C952 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C953 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C954 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C955 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C960 | VCKYCY1EF474Z | AA | | | 0.47 µF, 25V |
| C961 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C962 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C963 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| C964 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| C965 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C966 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C980 | VCKYCY1EF474Z | AA | | | 0.47 µF, 25V |
| C981 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[6] CAPACITORS** | | | | | |
| C982 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C983 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| C984 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| C985 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C986 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| C990 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C991 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C992 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C994 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C995 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| C996 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA16 | VCEAZA1AW227M | AC | | | 220 µF, 10V, Electrolytic |
| CA17 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| CA18 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA19 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA4 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA5 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA6 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA7 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CA8 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX304A | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX500 | VCCCCY1HH470J | AA | | | 47 pF(CH), 50V |
| CX501 | VCCCCY1HH470J | AA | | | 47 pF(CH), 50V |
| CX502 | VCCCCY1HH470J | AA | | | 47 pF(CH), 50V |
| CX504 | VCCCCY1HH470J | AA | | | 47 pF(CH), 50V |
| CX506 | VCCCCY1HH220J | AA | | | 22 pF (CH), 50V |
| CX507 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX509 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX510 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX511 | VCCCCZ1HH330J | AB | | | 33 pF (CH), 50V |
| CX512 | VCCCCZ1HH330J | AB | | | 33 pF (CH), 50V |
| CX513 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX514 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX601 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX602 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| CX603 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX604 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX605 | VCKYCZ1EB103K | AA | | | 0.01 µF, 25V |
| CX607 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX608 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX609 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| CX610 | VCKYCZ1HB102K | AB | | | 1000 pF, 50V |
| CX615 | VCEAZA1CW106M | AC | | | 10 µF, 16V, Electrolytic |
| CX616 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX617 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX619 | VCCCCY1HH300J | AA | | | 30 pF (CH), 50V |
| CX620 | VCCCCY1HH300J | AA | | | 30 pF (CH), 50V |
| CX624 | VCCCCY1HH390J | AA | | | 39 pF (CH), 50V |
| CX625 | VCCCCY1HH390J | AA | | | 39 pF (CH), 50V |
| CX633 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX636 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX648 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX653 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX655 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| CX656 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| CX657 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| CX658 | VCCCCY1HH330J | AA | | | 33 pF (CH), 50V |
| CX841 | VCEAZA1CW477M | AC | | | 470 µF, 16V, Electrolytic |
| CX842 | VCKYTV1EB106K | AC | | | 10 µF, 50V |
| CX844 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX845 | VCKYTV1EB106K | AC | | | 10 µF, 50V |
| CX846 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX848 | VCKYCY1HB821K | AA | | | 820 pF (CH), 50V |
| CX850 | VCEAZA1AW227M | AC | | | 220 µF, 10V, Electrolytic |
| CX851 | VCKYCZ1AB474K | AA | | | 0.47 µF, 10V |
| CX852 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX901 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX910 | RC-EZD226AF1C | AB | | | 22 µF, 16V, Electrolytic |
| CX912 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX921 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX922 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX923 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX924 | VCKYCY1HB333K | AB | | | 0.033 µF, 50V |
| CX927 | RC-KZA733WJZZ | AC | | | 0.1 µF, 50V |
| CX930A | RC-KZA815WJQZ | AD | | | 4.7 µF, 50V |
| CX931A | RC-KZA815WJQZ | AD | | | 4.7 µF, 50V |
| CX932 | RC-KZA733WJZZ | AC | | | 0.1 µF, 50V |
| CX933 | VCKYCY1HB333K | AB | | | 0.033 µF, 50V |
| CX934 | VCKYCY1HB333K | AB | | | 0.033 µF, 50V |
| CX935 | RC-KZA733WJZZ | AC | | | 0.1 µF, 50V |
| CX940 | RC-KZA733WJZZ | AC | | | 0.1 µF, 50V |
| CX943 | VCKYCY1HB333K | AB | | | 0.033 µF, 50V |
| CX944 | VCKYCZ1EF104Z | AA | | | 0.1 µF, 25V |
| CX950 | VCEAZA1JW227M | AD | | | 220 µF, 63V, Electrolytic |
| CX951 | VCEAZA1JW227M | AD | | | 220 µF, 63V, Electrolytic |
| CX952 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX953 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX954 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| CX955 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[6] CAPACITORS** | | | | | |
| CX960 | RC-KZA733WJZZ | AC | | | 0.1 µF, 50V |
| CX961 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX962 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX963 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| CX964 | VCKYCY1HB102K | AA | | | 1000 pF, 50V |
| CX965 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| CX966 | VCKYCY1HB103K | AA | | | 0.01 µF, 50V |
| CX994 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX995 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX996 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| CX997 | VCCCCZ1HH330J | AB | | | 33 pF (CH), 50V |
| RX9 | VCKYCY1HB104K | AD | | | 0.1 µF,50V |
| **[7] RESISTORS** | | | | | |
| FB100 | VRS-CY1JB821J | AA | | | 820 ohm, 1/16W |
| FB314 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| FBX304A | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| JP2 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| JP5 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| JP6 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| JP7 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| JP8 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| JP10 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| JP500 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| JP501 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| JP800 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| JM2 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| L700 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| L701 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| L900 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R8 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R9 | VRS-CY1JB471J | AA | | | 470 ohm, 1/16W |
| R10 | VRS-CY1JB331J | AA | | | 330 ohm, 1/16W |
| R11 | VRSCY1JB4990F | AA | | | 499 ohm, 1/16W |
| R12 | VRS-CY1JF202F | AA | | | 2 kohm, 1/16W |
| R13 | VRSCY1JB4990F | AA | | | 499 ohm, 1/16W |
| R14 | VRSCY1JB4990F | AA | | | 499 ohm, 1/16W |
| R16 | VRSCY1JB4990F | AA | | | 499 ohm, 1/16W |
| R17 | VRSCY1JB4990F | AA | | | 499 ohm, 1/16W |
| R18 | VRSCY1JB4990F | AA | | | 499 ohm, 1/16W |
| R19 | VRS-CY1JB680J | AA | | | 68 ohm, 1/16W |
| R20 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R21 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R22 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R23 | VRSCY1JB49R9F | AA | | | 49.9 ohm, 1/16W |
| R24 | VRSCY1JB49R9F | AA | | | 49.9 ohm, 1/16W |
| R25 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R26 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R27 | VRS-CY1JB331J | AA | | | 330 ohm, 1/16W |
| R28 | VRS-CY1JB105J | AA | | | 1 Mohm, 1/16W |
| R29 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R30 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R31 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R32 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R33 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R34 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R35 | VRS-CY1JB471J | AA | | | 470 ohm, 1/16W |
| R36 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R37 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R38 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R39 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R40 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R41 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R42 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R43 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R44 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R45 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R46 | VRS-CY1JB273F | AA | | | 27 kohm,1/16W |
| R47 | VRS-CY1JB473J | AA | | | 47 kohm, 1/16W |
| R48 | VRS-CY1JB473J | AA | | | 47 kohm, 1/16W |
| R51 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R52 | VRS-CY1JB473J | AA | | | 47 kohm, 1/16W |
| R53 | VRS-CY1JB473J | AA | | | 47 kohm, 1/16W |
| R56 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R57 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R58 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R59 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R60 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R61 | VRS-CY1JF514J | AA | | | 510 kohm, 1/16W |
| R62 | VRS-CY1JF514J | AA | | | 510 kohm, 1/16W |
| R63 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R64 | VRS-CY1JB103F | AA | | | 10 kohm,1/16W |
| R65 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R66 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R67 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R68 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R69 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R70 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[7] RESISTORS** | | | | | |
| R71 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R72 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R73 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R74 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R75 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R76 | VRS-CY1JB202J | AA | | | 2 kohm, 1/16W |
| R77 | VRS-CY1JB473J | AA | | | 47 kohm, 1/16W |
| R78 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R79 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R100 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R101 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R102 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R105 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R106 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R107 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R108 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R109 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R110 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R111 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R112 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R113 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R114 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R115 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R116 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R118 | VRS-CZ1JB302J | AA | | | 3 kohm, 1/16W |
| R119 | VRS-CZ1JF473J | AA | | | 47 kohm, 1/16W |
| R120 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R122 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R123 | VRS-CY1JB750F | AA | | | 75 ohm, 1/16W |
| R124 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| R125 | VRS-CZ1JF473J | AA | | | 47 kohm, 1/16W |
| R127 | VRS-CY1JB330J | AA | | | 33 ohm, 1/16W |
| R129 | VRS-CY1JB330J | AA | | | 33 ohm, 1/16W |
| R130 | VRS-CY1JB222J | AA | | | 2.2 kohm, 1/16W |
| R132 | VRS-CZ1JF473J | AA | | | 47 kohm, 1/16W |
| R133 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R134 | VRS-CZ1JF473J | AA | | | 47 kohm, 1/16W |
| R135 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R136 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R137 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R138 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R139 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R140 | VRS-CZ1JF152J | AA | | | 1.5 kohm, 1/16W |
| R141 | VRS-CZ1JF512F | AA | | | 5.1 kohm, 1/16W |
| R142 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R143 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R144 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R145 | VRS-CZ1JB105J | AB | | | 1 Mohm, 1/16W |
| R147 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R148 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R149 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R150 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R151 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R152 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R153 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R155 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R156 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R157 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R158 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R159 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R160 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R164 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R165 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R172 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R179 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R182 | VRS-CY1JB103J | AA | | | 10 kohm,1/16W |
| R198 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R199 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R200 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R201 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R202 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R300 | VRS-CY1JB473J | AA | | | 47 kohm, 1/16W |
| R302 | VRS-TV2AB471J | AA | | | 470 ohm, 1/10W |
| R308 | VRS-CY1JB823J | AA | | | 82 kohm, 1/16W |
| R309 | VRS-CY1JB823J | AA | | | 82 kohm, 1/16W |
| R310 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| R311 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| R312 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R316 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R317 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R350 | VRS-CZ1JB224J | AA | | | 220 kohm,1/16W |
| R351 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R352 | VRS-CZ1JF680J | AA | | | 68 ohm, 1/16W |
| R353 | VRS-CZ1JB824J | AA | | | 820 kohm,1/16W |
| R354 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R355 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R356 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R357 | VRS-CZ1JB823J | AB | | | 82 kohm, 1/16W |
| R360 | VRS-CY1JB152J | AA | | | 1.5 kohm, 1/16W |

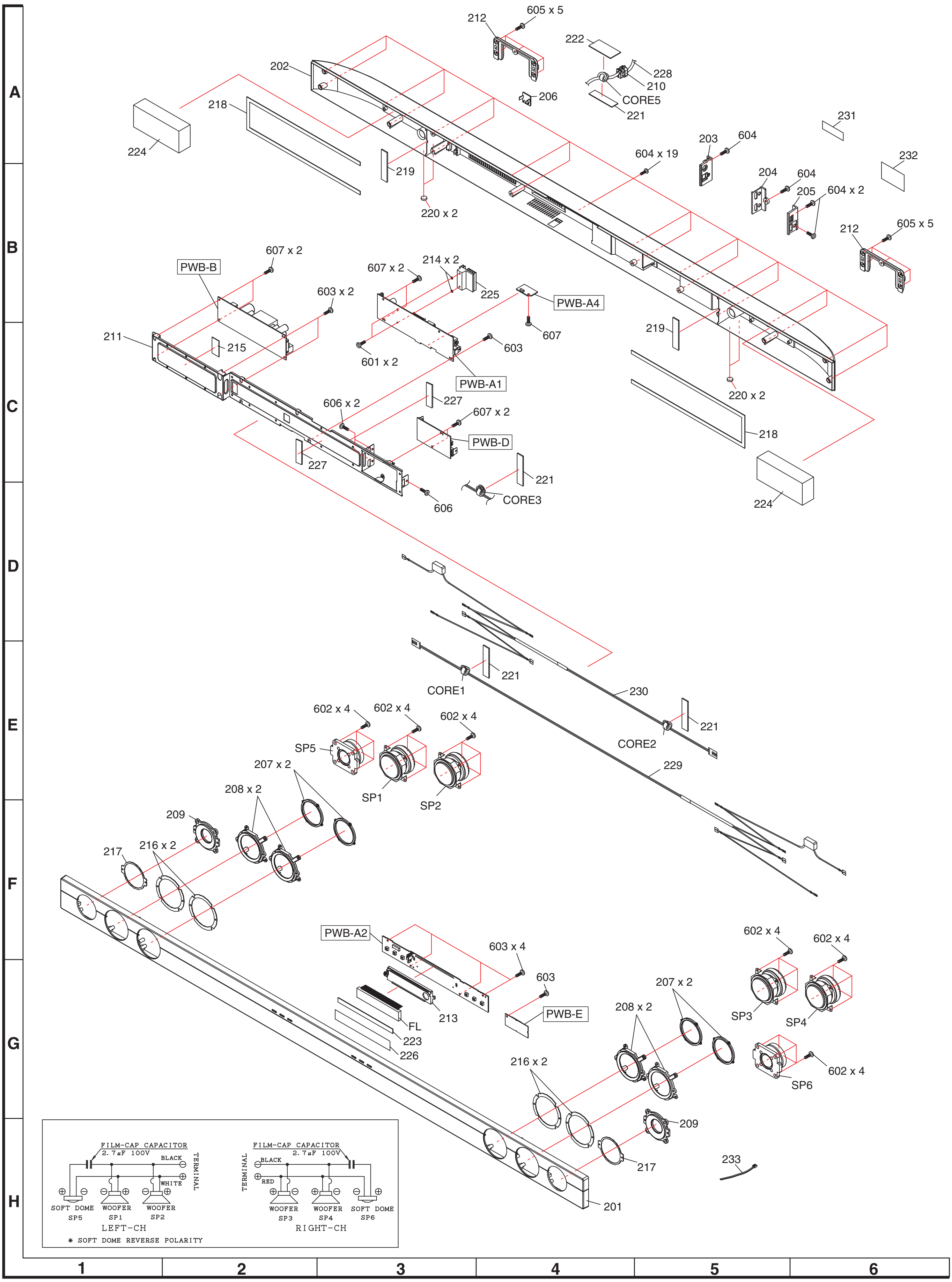
| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[7] RESISTORS** | | | | | |
| R361 | VRS-CY1JB152J | AA | | | 1.5 kohm, 1/16W |
| R362 | VRS-CY1JB152J | AA | | | 1.5 kohm, 1/16W |
| R363 | VRS-CY1JB152J | AA | | | 1.5 kohm, 1/16W |
| R364 | VRS-CY1JB333J | AA | | | 33 kohm, 1/16W |
| R365 | VRS-CY1JB333J | AA | | | 33 kohm, 1/16W |
| R500 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R501 | VRS-CZ1JF474J | AA | | | 470 kohm, 1/16W |
| R502 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R503 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R504 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R505 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R506 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R507 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R508 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R509 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R515 | VRS-CZ1JF221J | AA | | | 220 ohm, 1/16W |
| R516 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R517 | VRS-CY1JB221J | AA | | | 220 ohm, 1/16W |
| R518 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R519 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R520 | VRS-CZ1JF330J | AA | | | 33 ohm, 1/16W |
| R521 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| R522 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R523 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R524 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R526 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R527 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R528 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R529 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R531 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R532 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R535 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R536 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R537 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R538 | VRS-CZ1JB100J | AB | | | 10 ohm, 1/16W |
| R539 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R540 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R541 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R542 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R544 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R545 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R546 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R547 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R548 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R549 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R551 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R553 | VRS-CZ1JF822J | AA | | | 8.2 kohm,1/16W |
| R554 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R555 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R556 | VRS-CZ1JB104J | AA | | | 100 kohm, 1/16W |
| R557 | VRS-CZ1JF393J | AA | | | 39 kohm, 1/16W |
| R558 | VRS-CZ1JB104J | AA | | | 100 kohm, 1/16W |
| R559 | VRS-CZ1JF393J | AA | | | 39 kohm, 1/16W |
| R560 | VRS-CZ1JF222J | AA | | | 2.2 kohm, 1/16W |
| R561 | VRS-CZ1JF222J | AA | | | 2.2 kohm, 1/16W |
| R562 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R563 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R564 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R566 | VRS-CY1JB103J | AA | | | 10 kohm,1/16W |
| R567 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R570 | VRS-CZ1JF222J | AA | | | 2.2 kohm, 1/16W |
| R571 | VRS-CZ1JF222J | AA | | | 2.2 kohm, 1/16W |
| R572 | VRS-CZ1JB104J | AA | | | 100 kohm, 1/16W |
| R573 | VRS-CZ1JF681J | AA | | | 680 ohm,1/16W |
| R576 | VRS-CY1JB151J | AA | | | 150 ohm, 1/16W |
| R578 | VRS-CY1JB151J | AA | | | 150 ohm, 1/16W |
| R580 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R581 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R590 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R591 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R593 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R594 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R602 | VRS-CY1JB221J | AA | | | 220 ohm, 1/16W |
| R603 | VRS-CY1JB221J | AA | | | 220 ohm, 1/16W |
| R609 | VRS-CY1JB3R3J | AA | | | 3.3 ohm, 1/16W |
| R618 | VRS-CY1JB105J | AA | | | 1 Mohm, 1/16W |
| R628 | VRS-CY1JB470J | AA | | | 47 ohm, 1/16W |
| R629 | VRS-CY1JB470J | AA | | | 47 ohm, 1/16W |
| R630 | VRS-CY1JB470J | AA | | | 47 ohm, 1/16W |
| R639 | VRS-CY1JB470J | AA | | | 47 ohm, 1/16W |
| R640 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R641 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R642 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R643 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R646 | VRS-CZ1JF102J | AA | | | 1 kohm, 1/16W |
| R701 | VRS-TW2HF000J | AB | | | 0 ohm, Jumper, 1/2W |
| R702 | VRS-CY1JB151J | AA | | | 150 ohm, 1/16W |
| R703 | VRS-CZ1JF124F | AA | | | 120 kohm, 1/16W |
| R704 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[7] RESISTORS** | | | | | |
| R705 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R706 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R707 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| R708 | VRS-CY1JB182J | AA | | | 1.8 kohm,1/16W |
| R709 | VRS-CY1JB222J | AA | | | 2.2 kohm, 1/16W |
| R710 | VRS-CY1JB332J | AA | | | 3.3 kohm, 1/16W |
| R713 | VRS-CY1JB101J | AA | | | 100 ohm, 1/16W |
| R714 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| R715 | VRS-CY1JB472J | AA | | | 4.7 kohm, 1/16W |
| R801 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R802 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R803 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R804 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R831 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R832 | VRS-CZ1JB471J | AA | | | 470 ohm, 1/16W |
| R835 | VRS-CZ1JF103J | AA | | | 10 kohm,1/16W |
| R836 | VRS-CZ1JB471J | AA | | | 470 ohm, 1/16W |
| R841 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R843 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R844 | VRS-CY1JB223F | AA | | | 22 kohm, 1/16W |
| R845 | VRS-CY1JB104F | AA | | | 100 kohm, 1/16W |
| R846 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R848 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R849 | VRS-CY1JB512J | AA | | | 5.1 kohm, 1/16W |
| R850 | VRS-CY1JB332J | AA | | | 3.3 kohm, 1/16W |
| R851 | VRS-CY1JB333J | AA | | | 33 kohm, 1/16W |
| R852 | VRS-CY1JB821J | AA | | | 820 ohm, 1/16W |
| R853 | VRS-TV2AB000J | AA | | | 0 ohm, Jumper, 1.25x2mm |
| R854 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| R855 | VRS-TQ2EF000J | AA | | | 0 ohm, Jumper |
| R860 | VRS-CY1JBR22J | AB | | | 0.22 ohm, 1/16W |
| R861 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| R862 | VRS-CZ1JF332J | AA | | | 3.3 kohm, 1/16W |
| R863 | VRS-CY1JB181J | AA | | | 180 ohm, 1/16W |
| R864 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R865 | VRS-CZ1JB823J | AB | | | 82 kohm, 1/16W |
| R901 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R902 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| R905 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| R906 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| R908 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| R909 | VRS-CZ1JB273J | AA | | | 27 kohm,1/16W |
| R910 | VRS-CY1JB471J | AA | | | 470 ohm, 1/16W |
| R916 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| R918 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| R921 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| R922 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R923 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R944 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R952 | VRS-CY1JB3R3J | AA | | | 3.3 ohm, 1/16W |
| R953 | VRS-CY1JB3R3J | AA | | | 3.3 ohm, 1/16W |
| R961 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R962 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R981 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| R982 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| RA1 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA2 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA3 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA4 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA5 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA6 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA7 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA8 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA9 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA10 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA11 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA12 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA13 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA14 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA15 | VRSCZ1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RA16 | VRSCY1JB51R1F | AA | | | 51.1 ohm, 1/16W |
| RX500 | VRS-CY1JB101J | AA | | | 100 ohm, 1/16W |
| RX501 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| RX502 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| RX503 | VRS-CY1JB101J | AA | | | 100 ohm, 1/16W |
| RX504 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| RX525 | VRS-CY1JB102J | AA | | | 1 kohm, 1/16W |
| RX527 | VRS-CY1JB821J | AA | | | 820 ohm, 1/16W |
| RX528 | VRS-CY1JB820J | AA | | | 82 ohm, 1/16W |
| RX543 | VRS-CY1JB103J | AA | | | 10 kohm,1/16W |
| RX601 | VRS-CZ1JF221J | AA | | | 220 ohm, 1/16W |
| RX602 | VRS-CZ1JF221J | AA | | | 220 ohm, 1/16W |
| RX609 | VRS-CY1JB3R3J | AA | | | 3.3 ohm, 1/16W |
| RX618 | VRS-CZ1JB105J | AB | | | 1 Mohm, 1/16W |
| RX628 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| RX629 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| RX630 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| RX639 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| RX640 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[7] RESISTORS** | | | | | |
| RX641 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| RX841 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| RX843 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| RX844 | VRS-CY1JB104F | AA | | | 100 kohm, 1/16W |
| RX845 | VRS-CY1JB104F | AA | | | 100 kohm, 1/16W |
| RX846 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| RX848 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| RX849 | VRS-CY1JB512J | AA | | | 5.1 kohm, 1/16W |
| RX850 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| RX851 | VRS-CY1JB333J | AA | | | 33 kohm, 1/16W |
| RX852 | VRS-CY1JB303D | AA | | | 30 kohm, 1/16W |
| RX856 | VRS-CY1JB102F | AA | | | 1 kohm, 1/16W |
| RX857 | VRS-CY1JB000J | AA | | | 0 ohm, Jumper, 0.8X1.55mm |
| RX901 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| RX902 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| RX905 | VRS-CZ1JB470J | AB | | | 47 ohm, 1/16W |
| RX906 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| RX908 | VRS-CZ1JB101J | AB | | | 100 ohm, 1/16W |
| RX909 | VRS-CZ1JB223J | AB | | | 22 kohm, 1/16W |
| RX910 | VRS-CY1JB471J | AA | | | 470 ohm, 1/16W |
| RX915 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| RX918 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| RX921 | VRS-CZ1JB000J | AB | | | 0 ohm, Jumper |
| RX922 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| RX923 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| RX944 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| RX952 | VRS-CY1JB3R3J | AA | | | 3.3 ohm, 1/16W |
| RX953 | VRS-CY1JB3R3J | AA | | | 3.3 ohm, 1/16W |
| RX961 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| RX962 | VRS-CY1JB100J | AA | | | 10 ohm, 1/16W |
| **[8] OTHER CIRCUITRY PARTS** | | | | | |
| B800 | QCNWNB902AWPZ | AL | | | Connector Ass'y, 12 / 10 Pin [with CNS800] [Use in MAIN PWB-A1] |
| Bi800X | QCNWNB926AWPZ | AL | | | Connector Ass'y, 11 / 10 Pin [with CNS800X] [Use in SUBWOOFER PWB-A3] |
| Bi801A_B | QCNWNB901AWPZ | AN | | | Connector Ass'y, 12 / 11 Pin [with CNS801] [Use in MAIN PWB-A1] |
| CNP109 | QCNCWXC08AFZZ | AE | | | Connector, 8 Pin [Use in MAIN PWB-A1] |
| CNP301X | QCNCM046BAWZZ | AC | | | Connector, 2 Pin [Use in SUBWOOFER PWB-A3] |
| CNP502 | QCNCWXM24AWZZ | AG | | | Connector, 24 Pin [Use in MAIN PWB-A1] |
| CNP600X | QCNCWXM24AWZZ | AG | | | Connector, 24 Pin [Use in SUBWOOFER PWB-A3] |
| CNP601X | QCNCWXC05AFZZ | AC | | | Connector, 5 Pin [Use in SUBWOOFER PWB-A3] |
| CNP602X | QCNCM705CAFZZ | AA | | | Connector, 3 Pin [Use in SUBWOOFER PWB-A3] |
| CNP700 | QCNCWYH14AWZZ | AD | | | Connector, 30 Pin [Use in DISPLAY PWB-A2] |
| CNP800 | QCNCW010DAWZZ | AA | | | Connector, 4 Pin [Use in REGULATOR PWB-A4] |
| CNP802 | QCNCM010DAWZZ | AA | | | Connector, 4 Pin [Use in MAIN PWB-A1] |
| CNP803 | QCNCWYG14AWZZ | AD | | | Connector, 30 Pin [Use in MAIN PWB-A1] |
| FFC502 | QCNWNB927AWPZ | AE | | | Flat cable, 24 Pin [ Connect CNP502 and J1 ] |
| FFC600X | QCNWNB847AWPZ | AC | | | Flat cable, 24 Pin [ Connect CNP600X and J1 ] |
| FFC803 | QCNWNB950AWPZ | AD | | | Flat cable, 30 Pin [ Connect CNP803 and CNP700 ] |
| FL700 | VVKNA16SM21-1 | AQ | | | FL Display |
| J2 | QSŌCZA035AWZZ | AF | | | Jack, HDMI (IN) |
| J3 | QSŌCZA035AWZZ | AF | | | Jack, HDMI (IN) |
| J4 | QSŌCZA035AWZZ | AF | | | Jack, HDMI (OUT) |
| J5 | QPLGNA345WJZZ | AD | | | Connector, 11 Pin |
| JK301 | QJAKMA029AWZZ | AE | | | Jack, Audio In |
| JR1 | QCNCWXC05AFZZ | AC | | | Connector, 5 Pin [Use in HDMI PWB-D] |
| LUG E | QCNWNB709AWPZ | AD | | | Lug Wire, 85mm [Use in SUBWOOFER PWB-A3] |
| RX701 | VHLK2013TH2E1 | AG | | | Remote Sensor |
| RXM301 | VHPGP1F31RK-1 | AL | | | Jack, Digital In / Optical |
| CS1 | PSHEZA312AWZZ | AF | | | Sheet, Copper |
| CS2 | PSHEZA313AWZZ | AF | | | Sheet, Copper |
| SŌ901 | QCNCM046BAWZZ | AC | | | Connector, 2 Pin [Use in MAIN PWB-A1] |
| SŌ902 | QCNCM046BAWZZ | AC | | | Connector, 2 Pin [Use in MAIN PWB-A1] |
| SW501X | QSW-QA002AWZZ | AC | | | Switch, Push Type |
| SW701 | 92LSWiCHT1663T | AC | | | Switch, Key Type |
| SW702 | 92LSWiCHT1663T | AC | | | Switch, Key Type |
| SW703 | 92LSWiCHT1663T | AC | | | Switch, Key Type |
| SW704 | 92LSWiCHT1663T | AC | | | Switch, Key Type |
| SW705 | 92LSWiCHT1663T | AC | | | Switch, Key Type |
| SW706 | 92LSWiCHT1663T | AC | | | Switch, Key Type |
| WiRE A | QCNWNB716AWPZ | AD | | | Single Wire |
| WiRE B | QCNWNB970AWPZ | AC | | | Single Wire |
| WiRE C | QCNWNB972AWPZ | AD | | | Lug Wire, 60mm |
| WiRE C-C' | QCNWNB719AWPZ | AD | | | Lug Wire, Blue, 30mm |
| WiRE D-D' | QCNWNB719AWPZ | AD | | | Lug Wire, Blue, 30mm |
| WiRE E | QCNWNC002AWPZ | AC | | | Single Wire |
| WiRE F | QCNWNC002AWPZ | AC | | | Single Wire |
| WiRE G | QCNWNB974AWPZ | AC | | | Single Wire |

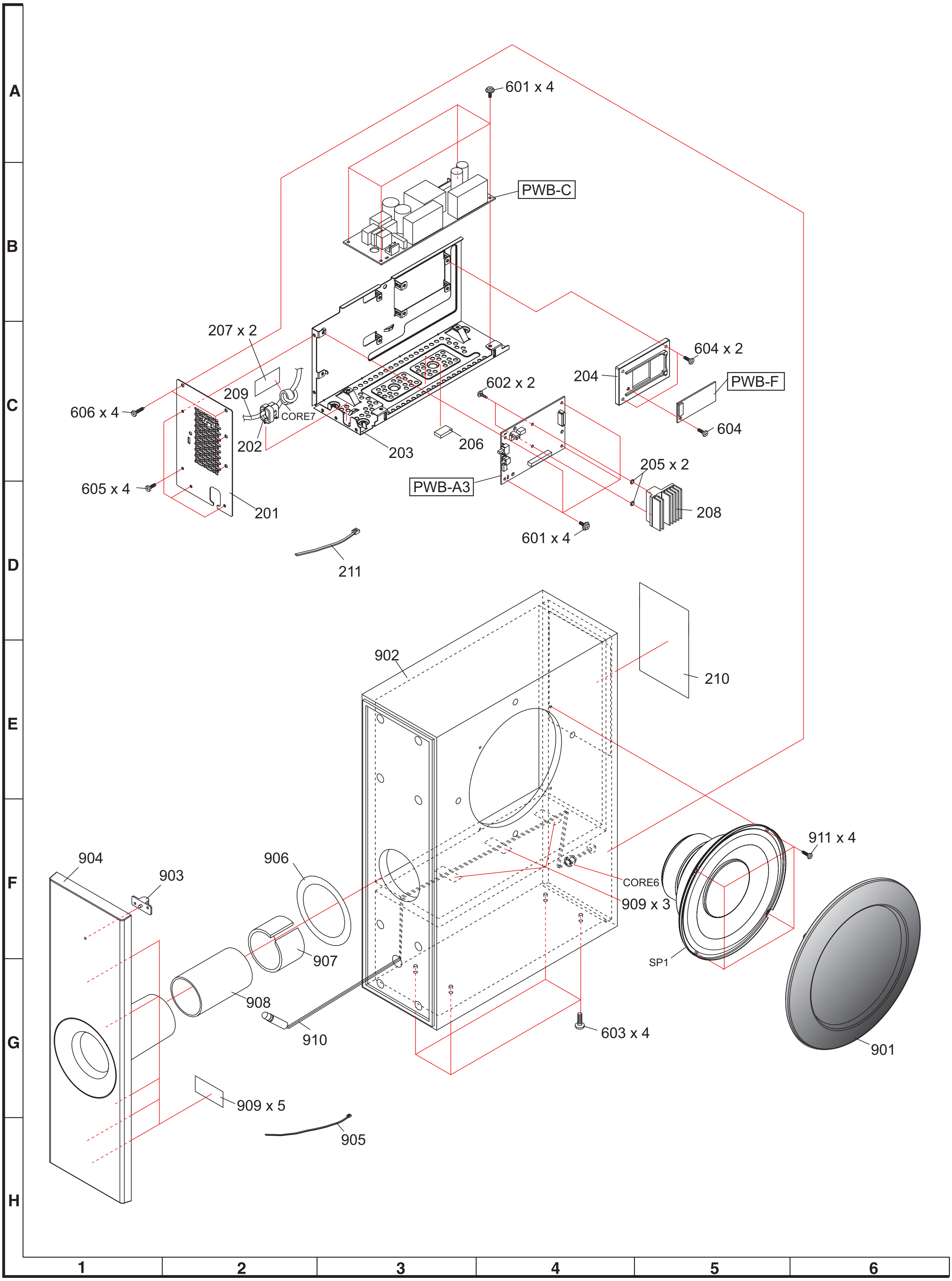
**-MEMO-**

## [9] SOUND BAR PARTS



| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[9] SOUND BAR PARTS** | | | | | |
| 201 | CPNLSA136AW01 | BR | | | Front Cabinet Ass'y |
| 202 | GCAB-A125AWSA | BM | | | Back Cabinet |
| 203 | GCOVAA366AWSA | AE | | | Cover, Back Cabinet, A |
| 204 | GCOVAA367AWSA | AE | | | Cover, Back Cabinet, B |
| 205 | GCOVAA368AWSA | AE | | | Cover, Back Cabinet, C |
| 206 | GCOVAA369AWSA | AD | | | Cover, Cord |
| 207 | HDECQA637AWSB | AN | | | Woofer Decoration Ring |
| 208 | HDECQA638AWSA | AL | | | Woofer Ring |
| 209 | HDECQA639AWSA | AM | | | Soft Dome Ring |
| 210 | LBSHC0002AWZZ | AD | | | Bushing, AC Power Supply Cord |
| 211 | LCHSMA129AWFW | AR | | | Chassis, Main |
| 212 | LHLDZA214AWSA | AF | | | Bracket, Wall Mount |
| 213 | LHLDZA295AWSA | AE | | | Holder, FL |
| 214 | PCUSGA182AWZZ | AD | | | Cushion, Heat Sink |
| 215 | PCUSGA210AWZZ | AF | | | Cushion, Stand |
| 216 | PCUSSA240AWZZ | AD | | | Cushion, Woofer Ring |
| 217 | PCUSSA241AWZZ | AC | | | Cushion, Soft Dome Ring |
| 218 | PCUSSA242AWZZ | AD | | | Cushion, Speaker Sealed, A |
| 219 | PCUSSA243AWZZ | AB | | | Cushion, Sealed Speaker, B |
| 220 | PCUSSA245AWZZ | AC | | | Cushion, Leg |
| 221 | PCUSSA255AWZZ | AB | | | Cushion, Ring Core |
| 222 | PCUSSA258AWZZ | AC | | | Cushion, Ring Core |
| 223 | PFLT-A181AWZZ | AD | | | Felt, Display |
| 224 | PKYU-A050AWZZ | AD | | | Wool, White |
| 225 | PRDARA241AWFW | AK | | | Heat Sink, IC |
| 226 | PSHEPA150AWSA | AF | | | Sheet, FL |
| 227 | PSHEZA314AWZZ | AE | | | Sheet, Copper |
| ⚠ 228 | QACCBA008AW00 | AX | | | AC Power Supply Cord [ For U.K. ] |
| ⚠ 228 | QACCEA001AW00 | AP | | | AC Power Supply Cord [ For Europe ] |
| 229 | QCNWNB943AWPZ | AQ | | | Speaker Wire Assy (Right) |
| 230 | QCNWNB944AWPZ | AQ | | | Speaker Wire Assy (Left) |
| 231 | TLABZC131AWZZ | AD | | | Label, DOLBY / DTS |
| 232 | TSPC-B735AWZZ | AD | | | Label, Specification [ For Europe ] |
| 232 | TSPC-B740AWZZ | AD | | | Label, Specification [ For U.K. ] |
| 233 | 92LNBAND1318A | AA | | | Nylon Band |
| SP 1~4 | RSP-ZA393AWZZ | AT | | | Woofer |
| SP 5,6 | RSP-ZA394AWZZ | AU | | | Soft Dome |
| 601 | LX-JZ0044AWF8 | AB | | | Screw, Special |
| 602 | XEBY730P08000 | AA | | | Screw, M3 X 8mm |
| 603 | XEBY730P10000 | AA | | | Screw, M3 X 10mm |
| 604 | XEBY830P10000 | AB | | | Screw, M3 X 10mm |
| 605 | XEBY835P10000 | AB | | | Screw, M3.5 X 10mm |
| 606 | XHBY830P08000 | AB | | | Screw, M3 X 8mm |
| 607 | XJBY730P08000 | AA | | | Screw, M3 X 8mm |

## [10] ACTIVE SUBWOOFER PARTS



| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[10] ACTIVE SUBWOOFER PARTS** | | | | | |
| 201 | GiTARA979AWSA | AH | | | Rear Panel |
| 202 | LBSHC0002AWZZ | AD | | | Bushing, AC Power Supply Cord |
| 203 | LCHSMA131AWFW | AP | | | Chassis, Main |
| 204 | LHLDZA290AWZZ | AE | | | Holder, Receive PWB |
| 205 | PCUSGA182AWZZ | AD | | | Cushion, Heat Sink |
| 206 | PCUSGA210AWZZ | AF | | | Cushion, Stand |
| 207 | PCUSSA258AWZZ | AC | | | Cushion, Ring Core |
| 208 | PRDARA224AWFW | AN | | | Heat Sink, IC |
| ⚠ 209 | QACCBA008AW00 | AX | | | AC Power Supply Cord [ For U.K. ] |
| ⚠ 209 | QACCEA001AW00 | AP | | | AC Power Supply Cord [ For Europe ] |
| 210 | TSPC-B778AWZZ | AE | | | Label, Specification [ For Europe ] |
| 210 | TSPC-B779AWZZ | AE | | | Label, Specification [ For U.K. ] |
| 211 | 92LNBAND1318A | AA | | | Nylon Band |
| 601 | LX-JZ0010AFF7 | AB | | | Screw, Special |
| 602 | LX-JZ0044AWF8 | AB | | | Screw, Special |
| 603 | XHBY740P10000 | AB | | | Screw, M4 x 10mm |
| 604 | XJBY730P08000 | AA | | | Screw, M3 X 8mm |
| 605 | XJBY830P06000 | AB | | | Screw, M3 X 6mm |
| 606 | XMBY835P12000 | AC | | | Screw, M3.5 x 12mm |
| 901 | CWAKPA028AW01 | AR | | | Net Frame Ass'y |
| 902 | GBOXSA345AW01 | BM | | | Wooden Box Ass'y |
| 903 | GCOVAA293AWSA | AH | | | LED Indicator |
| 904 | HPNLSA137AWSA | BA | | | Front Panel |
| 905 | LBNDZA001AWZZ | AE | | | Cable Tie |
| 906 | PCUSSA229AWZZ | AE | | | Cushion, Port |
| 907 | PCUSSA193AWZZ | AF | | | Sound Absorber |
| 908 | PDUC-A124AWSA | AN | | | Paper Duct |
| 909 | PFLT-A171AWZZ | AE | | | Felt |
| 910 | QCNWNB567AWPZ | AS | | | Lead Wire Ass'y |
| 911 | XMBY840P16000 | AC | | | Screw, M4 x 16mm |
| SP1 | RSP-ZA391AWZZ | BE | | | Woofer |
| **[11] ACCESSORIES / PACKING PARTS** | | | | | |
| 1 | GiTAUA022AW01 | AL | | | Subwoofer Stand Ass'y |
| 2 | LANGKA167AW01 | AP | | | Wall Mount Angle Ass'y ( 2pcs/pack) |
| 2-1 | LANGKA167AWFW | AK | | | Wall Mount Angle |
| 3 | QCNWGA077AWPZ | AV | | | HDMI Cable |
| 4 | QCNWGA080AW01 | AT | | | Audio Cable Ass'y |
| 5 | RRMCGA297AW01 | AU | | | Remote Control Ass'y |
| 6 | SPAKAA444AWZZ | AH | | | Packing Add, Top (SoundBar) |
| 7 | SPAKAA445AWZZ | AK | | | Packing Add, Bottom (SoundBar) |
| 8 | SPAKAA446AWZZ | AH | | | Packing Add, Bottom (Subwoofer) |
| 9 | SPAKAA447AWZZ | AK | | | Packing Add, Top (Subwoofer) |
| 10 | SPAKAA448AWZZ | AK | | | Packing Add, Protection |
| 11 | SPAKCB033AWZZ | AZ | | | Packing Case |
| 12 | SSAKAA011AWZZ | AB | | | Polyethylene Bag, Accessories |
| 13 | SSAKHA256AWZZ | AF | | | Polyethylene Bag, SoundBar |
| 14 | SSAKHA257AWZZ | AE | | | Polyethylene Bag, Subwoofer |
| 15 | SSAKHA258AWZZ | AB | | | Polyethylene Bag, AC Cord [ For U.K. only ] |
| 16 | TCAUHA031AWZZ | AG | | | Paper Pattern |
| 17 | TGAN-3170UMZZ | AE | | | Warranty Card [ For U.K. only ] |
| 18 | TiNSEA419AWZZ | AE | | | Operation Manual [ For U.K. ] |
| 18 | TiNSZB413AWZZ | AP | | | Operation Manual [ For Europe ] |
| 19 | TiNSEA410AWZZ | AC | | | Quick Guide [ For U.K. Only ] |
| 20 | TLABZA756AWZZ | AC | | | Label, Green Dot Mark [ For Europe Only ] |
| 21 | TLABZA991AWZZ | AB | | | Label, Saving Energy |
| 22 | TLABZC141AWSA | AF | | | Label, Pop (Subwoofer) |
| 23 | TLABZC142AWSA | AK | | | Label, Pop (SoundBar) |
| 24 | ------------- | - | | | Battery (Not Replacement Item ) |

## [12] P.W.B. ASSEMBLY

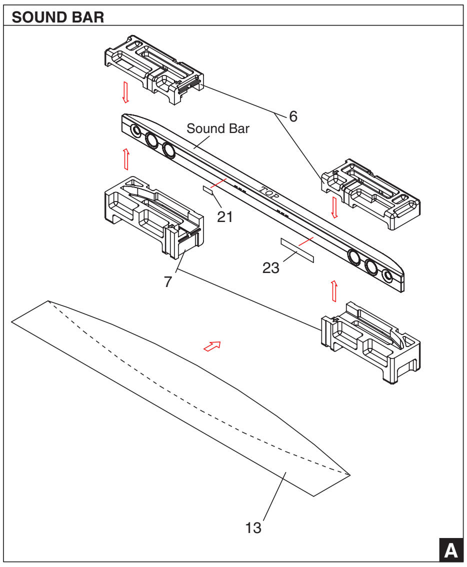
| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | REMARK (interchangeable) | DESCRIPTION |
|---|---|---|---|---|---|---|
| PWB-A | 92LPWB8696MANS | - | | | S Category | Main(A1) / Display(A2) / Subwoofer(A3) / Regulator(A4) |
| ⚠ PWB-B | RUiTZA069AWZZ | BL | | | X Category | SMPS (Amplifier) |
| ⚠ PWB-C | RUiTZA070AWZZ | BK | | | X Category | SMPS (Subwoofer) |
| PWB-D | 92LPWB8695HDMS | - | | | S Category | HDMI |
| PWB-E | RUiTZA082AWZZ | BD | | | X Category | Transmit |
| PWB-F | RUiTZA078AWZZ | BD | | | X Category | Receive |

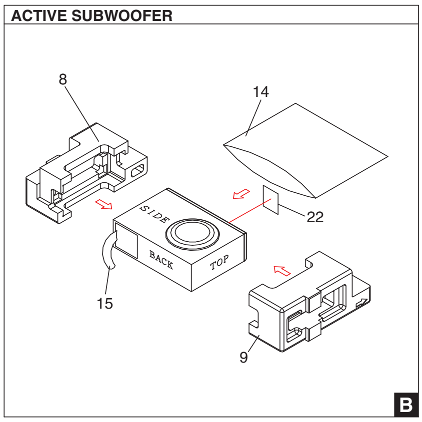
**NOTE: FOR AMPLIFIER PARTS, ITEM NO. ARE 2XX AND 6XX**
**FOR SUBWOOFER PARTS, ITEM NO. ARE 9XX**

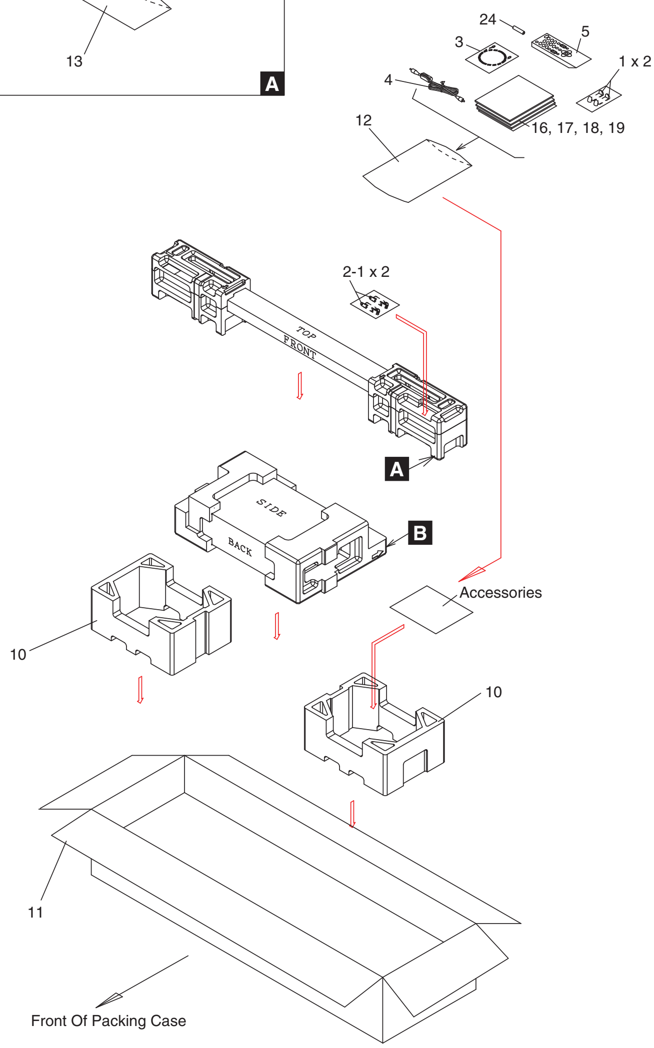
## [11] ACCESSORIES / PACKING PARTS

# PACKING METHOD (FOR U.K. ONLY)

| No. | Description | Parts Code |
|---|---|---|
| 1 | Subwoofer Stand Ass'y | GITAUA022AW01 |
| 2 | Wall Mount Angle Ass'y ( 2pcs/pack) | LANGKA167AW01 |
| 2-1 | Wall Mount Angle | LANGKA167AWFW |
| 3 | HDMI Cable | QCNWGA077AWPZ |
| 4 | Audio Cable Ass'y | QCNWGA080AW01 |
| 5 | Remote Control Ass'y | RRMCGA297AW01 |
| 6 | Packing Add, Top (SoundBar) | SPAKAA444AWZZ |
| 7 | Packing Add, Bottom (SoundBar) | SPAKAA445AWZZ |
| 8 | Packing Add, Bottom (Subwoofer) | SPAKAA446AWZZ |
| 9 | Packing Add, Top (Subwoofer) | SPAKAA447AWZZ |
| 10 | Packing Add, Protection | SPAKAA448AWZZ |
| 11 | Packing Case | SPAKCB033AWZZ |
| 12 | Polyethylene Bag, Accessories | SSAKAA011AWZZ |
| 13 | Polyethylene Bag, SoundBar | SSAKHA256AWZZ |
| 14 | Polyethylene Bag, Subwoofer | SSAKHA257AWZZ |
| 15 | Polyethylene Bag, AC Cord | SSAKHA258AWZZ |
| 16 | Paper Pattern | TCAUHA031AWZZ |
| 17 | Warranty Card | TGAN-3170UMZZ |
| 18 | Operation Manual | TiNSEA419AWZZ |
| 19 | Quick Guide | TiNSEA410AWZZ |
| 21 | Label, Saving Energy | TLABZA991AWZZ |
| 22 | Label, Pop (Subwoofer) | TLABZC141AWSA |
| 23 | Label, Pop (SoundBar) | TLABZC142AWSA |
| 24 | Battery (Not Replacement Item ) | -------------------- |



**-MEMO-**

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Sungai Petani, Kedah,
Malaysia

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